BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In the Matter of	)	
	)	
PUBLIC UTILITIES COMMISSION	)	DOCKET NO. 2008-0273
	)	
Instituting a Proceeding to Investigate the Implementation of Feed-in Tariffs	)	
	)	

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PUBLIC UTILITIES COMMISSION

PROPOSED TIER 3 TARIFF OF CLEAN ENERGY MAUI LLC AND ZERO EMISSIONS LEASING LLC

AND

CERTIFICATE OF SERVICE

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PROPOSED TIER 3 TARIFF OF
OF CLEAN ENERGY MAUI LLC AND
ZERO EMISSIONS LEASING LLC

CLEAN ENERGY MAUI LLC ("Clean Energy Maui") and ZERO EMISSIONS LEASING LLC ("Zero Emissions") respectfully submit the following Proposed Tier 3 Tariff, consisting of a proposed *Schedule FIT: Feed-in Tariff -- Purchases from Renewable Energy Generators* for each of Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc. and Maui Electric Company, Limited (the "HECO Companies"), together with a proposed *Appendix I: Standard Schedule FIT Agreement, Appendix II: Queuing and Interconnection Procedure* and *Appendix III: Renewable Energy Generating Facility Reliability Standards* for use by each of the HECO Companies, in the above-referenced proceeding.

The proposed Tier 3 Tariff rates for wind come from the "Tier 3 Wind -- HREA Analysis" furnished by Hawaii Renewable Energy Alliance to the parties in the docket on March 17, 2010.

The proposed Tier 3 Tariffs for in-line hydropower, photovoltaic solar power and concentrating solar power come from the Black & Veatch model spreadsheets furnished

by the HECO Companies to the parties in response to Department of Business, Economic Development and Tourism ("DBEDT") Information Request ("IR") 3 on or about March 10, 2010.

DATED: Honolulu, Hawaii, April 29, 2010

Erik Kvam
Chief Executive Officer
Zero Emissions Leasing LLC

Chris Mentzel by Erik
Chris Mentzel
President
Clean Energy Maui LLC

SCHEDULE FIT

Feed-in Tariff – Purchases from Renewable Energy Generators

Definitions:

For the purposes of this Schedule:

(1) "Baseline Energy" means energy generated or produced from wind, sun, falling water, biogas (including landfill and sewage-based digester gas), geothermal, ocean water, currents, and waves, including ocean thermal energy conversion, biomass (including biomass crops, agricultural and animal residues and wastes, and municipal solid waste and other solid waste), and hydrogen produced from renewable resources, other than Renewable Energy generated by a Photovoltaic Generating Facility, a Concentrating Solar Power Facility, an Onshore Wind Generating Facility or an In-line Hydropower Generating Facility.

(2) "Baseline Generating Facility" means a Renewable Energy Generating Facility that generates electricity from Baseline Energy.

(3) "*Commission*" *means the State of Hawaii Public Utilities Commission.*

(4) "Company" means Hawaiian Electric Company, Inc.

(5) "Concentrating Solar Power Facility" means a Renewable Energy Generating Facility that generates electricity by concentrating solar radiation to heat a working fluid that drives a generator.

(6) "Electrical Capacity" means the installed maximum nameplate alternating-current electricity generating capacity, in kilowatts, of a Renewable Energy Generating Facility.

(7) "FIT Reliability Standards" means standards developed and adopted by the Company, and approved by the Commission, that establish when an additional Renewable Energy Generating Facility can or cannot be interconnected with the Company's electric system on an island or region therein without markedly increasing curtailment of existing or new Renewable Energy Generating Facilities, including the Company's existing standards contained in the Company's tariff Rule 14H.

(8) "In-Line Hydropower" means hydroelectric generation that utilizes energy from a water pipeline system that is designed primarily to serve another functional purpose where a section of pipeline is replaced with a turbine-generator section.

(9) "In-Line Hydropower Generating Facility" means a Renewable Energy Generating Facility that generates electricity from In-Line Hydropower.

(10) "Onshore Wind Generating Facility" means any Wind Generating Facility that is not located in an ocean water depth of 20 meters or more.

(11) "Photovoltaic Generating Facility" means a Renewable Energy Generating Facility that uses photovoltaic material to generate electricity from solar radiation.

(12) "Renewable Energy Generating Facility" means any identifiable facility, plant, installation, project, equipment, apparatus, or the like, located in the State of Hawaii, placed in service after the effective date of this Schedule, and that generates Renewable Energy from a Renewable Energy Source.

(13) "Renewable Energy Generator" means any person that owns, controls, operates, manages, or uses a Renewable Energy Generating Facility to generate Renewable Energy from a Renewable Energy Source.

(14) "Renewable Energy Source" means the following sources of energy:

(a) In-Line Hydropower;
(b) solar radiation;
(c) wind;
(d) Baseline Energy.

(15) "Renewable Energy" means electricity generated by a Renewable Energy Generating Facility from a Renewable Energy Source.

(16) "Wind Generating Facility" means a Renewable Energy Generating Facility that generates electricity from wind.

Interconnection

Upon the application of a Renewable Energy Generator that places a Renewable Energy Generating Facility in service, the Company shall interconnect such Renewable Energy Generating Facility to the electric system of the Company, provided that technical requirements set forth in the Company's FIT Reliability Standards, as approved by the Commission, are met. If the Company decides, after performing an interconnection requirements study ("IRS"), that such Renewable Energy Generating Facility does not meet such technical requirements, the Company shall file a detailed report with the Commission explaining the reasons why such Renewable Energy Generating Facility does not meet such technical requirements.

Costs incurred to meet technical requirements of interconnection of a Renewable Energy Generating Facility shall be allocated in the manner set forth below under "Interconnection Costs." Each of the Company and the Renewable Energy Generator shall disclose to the other, within 6 weeks of a request by the other, any and all data, relating to the electric system of the

Company or the Renewable Energy Generating Facility of the Renewable Energy Generator, necessary to plan and execute such interconnection in conformity with such technical requirements.

A Renewable Energy Generating Facility shall be designed to operate in parallel with the Company's electric system without adversely affecting the operations of its customers and without presenting safety hazards to personnel of the Company or its customers. The Renewable Energy Generator shall furnish, install, operate and maintain facilities such as relays, switches, synchronizing equipment, monitoring equipment and control and protective devices designated by the Company and specified in the standard Schedule FIT Agreement ("Schedule FIT Agreement") as suitable for parallel operation with the electric system of the Company. The Renewable Energy Generating Facility and systems interconnecting the Renewable Energy Generating Facility with the Company's electric system must be in compliance with all applicable safety and performance standards of the National Electric Code (NEC), the Institute of Electrical and Electronics Engineers (IEEE), and the Company's requirements for distributed generation or storage interconnected with the Company's electric system as provided in the Company's Rules, and subject to any other requirements, including payments, as provided in the Schedule FIT Agreement.

Applications to interconnect a Renewable Energy Generating Facility in parallel with the Company's electric system will be processed in accordance with the queuing procedures in Appendix II.

Interconnection Features, Standards and Allocation of Costs

Features and standards of interconnection and allocation of costs of interconnection shall be as follows for each Renewable Energy Generating Facility that is interconnected to the electric system of the Company under this Schedule:

	Tier 1	**Tier 2**	**Tier 3**
	Electrical Capacity (kW)		
In-Line Hydropower Generating Facility Located on Oahu	≤ 20 kW	> 20 kW and ≤ 100 kW	> 100 kW and ≤ 5000 kW
Photovoltaic Generating Facility Located on Oahu	≤ 20 kW	> 20 kW and ≤ 500 kW	> 500 kW and ≤ 5000 kW
Concentrating Solar Power Generating Facility Located on Oahu	≤ 20 kW	> 20 kW and ≤ 500 kW	> 500 kW and ≤ 5000 kW
Onshore Wind	≤ 20 kW	> 20 kW and	> 100 kW and

Generating Facility Located on Oanu		≤ 100 kW	≤ 5000 kW
	Interconnection Features and Standards		
Voltage Regulation	None	None	Yes
Frequency Regulation	None	None	Yes
SCADA	None	None	Yes
	Allocation of Interconnection Costs		
Interconnection Requirements Study (IRS) Costs	Company	Company	Renewable Energy Generator
System and feeder studies and technology verification studies performed by the utility	Company	Company	Company
Project risk assessment costs including costs associated with curtailment studies	Company	Company	50% Company; 50% Renewable Energy Generator
Line extension and transformation equipment specific to the facility	Renewable Energy Generator	Renewable Energy Generator	Renewable Energy Generator
Substation specific to the facility	Company	Company	Company
Equipment installed at the customer site specific to the facility	Renewable Energy Generator	Renewable Energy Generator	Renewable Energy Generator
SCADA, control system, and curtailment system specific to the facility	Company	Company	Renewable Energy Generator
Utility system costs and upgrades	Company	Company	Company

Schedule FIT Agreement:

The Company shall offer a Schedule FIT Agreement, in the form provided in Appendix I, to any Renewable Energy Generator that applies for interconnection of a Renewable Energy Generating Facility to the electric system of the Company under this Schedule.

In the case of a Renewable Energy Generating Facility that is not compensated for curtailment, each such Schedule FIT Agreement shall oblige the Company to purchase and pay for all Renewable Energy generated by the Renewable Energy Generating Facility and delivered to the electric system of the Company at the feed-in tariff rate of compensation (in cents per kilowatt-hour) set forth in this Schedule, and shall oblige the Renewable Energy Generator to sell and deliver all Renewable Energy generated by the Renewable Energy Generating Facility, in excess of any electricity consumed by the Renewable Energy Generating Facility, to the Company, for the entire term of the Schedule FIT Agreement.

In the case of a Renewable Energy Generating Facility that is compensated for curtailment, each such Schedule FIT Agreement shall oblige the Company to purchase and pay for all Renewable Energy generated by the Renewable Energy Generating Facility and delivered to the electric system of the Company, and all Renewable Energy that would be generated by a Renewable Energy Generating Facility and delivered to the electric system of the Company but for curtailment by the Company of such generation or delivery, at the feed-in tariff rate of compensation (in cents per kilowatt-hour) set forth in this Schedule, and shall oblige the Renewable Energy Generator to sell and deliver all Renewable Energy generated by the Renewable Energy Generating Facility, in excess of any electricity consumed by the Renewable Energy Generating Facility, to the Company, for the entire term of the Schedule FIT Agreement.

Each such Schedule FIT Agreement shall oblige the Company to purchase and pay for all such Renewable Energy at the feed-in tariff rate of compensation (in cents per kilowatt-hour) set forth in this Schedule. The Company shall compensate the Renewable Energy Generator for such Renewable Energy in an amount no less than the number of kilowatt-hours of such Renewable Energy multiplied by such rate of compensation.

A Renewable Energy Generator that owns a Renewable Energy Generating Facility having an Electrical Capacity greater than 20 kilowatts shall be obliged to provide at least 3 months' advance to the Company and the Commission prior to ceasing operation of the Renewable Energy Generating Facility for reasons other than *force majeure* events. Any such Renewable Energy Generator that fails to provide such notice shall be subject to penalty.

Procedures for applying for and executing a Schedule FIT Agreement are provided in Appendix II to this Schedule.

Rights and Obligations Following Term of Schedule FIT Agreement

During a period commencing 6 months prior to the conclusion of the term of a Schedule FIT Agreement and ending upon the conclusion of such term, the Renewable Energy Generator that is a party to such Schedule FIT Agreement shall be obliged to offer to sell electricity

generated by the Renewable Energy Generating Facility to the Company on an annual basis at the feed-in tariff rate of compensation (in cents per kilowatt-hour) set forth in this Schedule as in effect upon the conclusion of such term for such Renewable Energy Generating Facility. If the Company does not accept such offer during such period, the Renewable Energy Generator shall have the right to sell such electricity at any rate of compensation to any person, or to sell such electricity at the PURPA avoided-cost rate to the Company if the Renewable Energy Generator is eligible to do so.

Metering; Instrumentation:

The Company, at its expense, shall install a meter to record the flow of Renewable Energy delivered to the electric system of the Company. The Renewable Energy Generator shall, at its expense, provide, install and maintain all conductors, service switches, fuses, meter sockets, meter instrument transformer housing and mountings, switchboard meter test buses, meter panels and similar devices required for service connection and meter installations on the premises of the Renewable Energy Generating Facility in accordance with the Company's Rules.

The Renewable Energy Generator, at its expense, shall install instrumentation for measuring the amount of hydrological flow, solar radiation, wind velocity and/or Baseline Energy source, as the case may be, at or immediately near the point of contact with the Renewable Energy Generating Facility.

Any energy delivered to a Renewable Energy Generator by the Company will be metered separately from any Renewable Energy delivered by the Renewable Energy Generator to the Company, either by use of multiple meters or a meter capable of separately recording the net inflow and outflow of electricity.

Purchase of Renewable Energy

The Company shall pay for each kilowatt-hour ("kWh") of Renewable Energy as follows.

Renewable Energy Source: In-line Hydropower			
In-Line Hydropower Generating Facility Located on Oahu Electrical Capacity (kW)		Feed-in Tariff Rate (¢/kWh)	
		Compensated for Curtailment	Not Compensated for Curtailment
Tier 1	≤ 20 kW	21.3	to be determined
Tier 2	> 20 kW and ≤ 100 kW	18.9	to be determined
Tier 3	> 100 kW and ≤ 5000 kW	12.8	to be determined

Renewable Energy Source: Solar Radiation			
Photovoltaic Generating Facility Located on Oahu Electrical Capacity (kW)		Feed-in Tariff Rate (¢/kWh)	
		Compensated for Curtailment	Not Compensated for Curtailment
Tier 1	≤ 20 kW	25.4	to be determined
Tier 2	> 20 kW and ≤ 500 kW	22.74	to be determined
Tier 3	> 500 kW and ≤ 5000 kW	19.0	to be determined

Renewable Energy Source: Solar Radiation			
Concentrating Solar Power Facility Located on Oahu Electrical Capacity (kW)		Feed-in Tariff Rate (¢/kWh)	
		Compensated for Curtailment	Not Compensated for Curtailment
Tier 1	≤ 20 kW	36.243	to be determined
Tier 2	> 20 kW and ≤ 500 kW	44.009	to be determined
Tier 3	> 500 kW and ≤ 5000 kW	23.8	to be determined

Renewable Energy Source: Wind			
Onshore Wind Generating Facility Located on Oahu Electrical Capacity (kW)		Feed-in Tariff Rate (¢/kWh)	
		Compensated for Curtailment	Not Compensated for Curtailment
Tier 1	≤ 20 kW	35.525	to be determined
Tier 2	> 20 kW and ≤ 100 kW	25.0	to be determined
Tier 3	> 100 kW and ≤ 5000 kW	17.7	to be determined

Renewable Energy Source: Baseline Energy			
Baseline Generating Facility Located on Oahu Electrical Capacity (kW)		Feed-in Tariff Rate (¢/kWh)	
		Compensated for Curtailment	Not Compensated for Curtailment
Tier 1	≤ 20 kW	21.3	to be determined
Tier 2	> 20 kW and ≤ 100 kW	18.9	to be determined
Tier 3	> 100 kW and ≤ 250 kW	12.8	to be determined
Tier 3	> 250 kW and ≤ 500 kW	12.8	to be determined
Tier 3	> 500 kW and ≤ 5000 kW	12.8	to be determined

The Commission shall periodically adjust the Schedule FIT feed-in tariff rates of compensation in accordance with the procedures provided in Appendix III of this Schedule. The Renewable Energy Generator shall receive the feed-in tariff rate of compensation in effect at the time of execution of the Schedule FIT Agreement for the entire term of the Schedule FIT Agreement.

Term of Schedule FIT Agreement:

The term of the Schedule FIT Agreement shall be as follows, commencing on the initial delivery of Renewable Energy under the Schedule FIT Agreement from the Renewable Energy Generator to the Company:

Renewable Energy Source	Term of Agreement
In-Line Hydropower	20 years
Solar Radiation	20 years
Wind	20 years
Baseline Energy	20 years

Net Energy Metering

A Renewable Energy Generator that currently has a net energy metering agreement with the Company, or that is eligible to enter into a net energy metering agreement with the Company, shall have a one-time choice of either (1) entering into a net energy metering agreement with the Company, or (2) entering into a Schedule FIT Agreement with the Company.

Schedule Q

The Company shall have no obligation to offer a Schedule FIT Agreement to a Renewable Energy Generator that currently has a power purchase agreement with the Company providing for the purchase of energy by the Company at a rate specified under Schedule Q.

Aggregate System Caps

The obligations of the Company to interconnect a Renewable Energy Generating Facility having an Electrical Capacity of less than 20 kilowatts to the Company's electric system, and to offer an Schedule FIT Agreement to a Renewable Energy Generator that applies for interconnection of such Renewable Energy Generating Facility to the electric system of the Company under this Schedule, shall not apply with respect to a Renewable Energy Generator that applies for interconnection of a Renewable Energy Generating Facility to the electric system of the Company under this Schedule after the time at which the Company has received applications for interconnection of Renewable Energy Generating Facilities, each having an Electrical Capacity of less than 20 kilowatts, and having an aggregate Electrical Capacity that equals or exceeds .25 per cent of the 2008 peak demand for such electrical system.

The obligations of the Company to interconnect a Renewable Energy Generating Facility having an Electrical Capacity of 20 kilowatts or more to the Company's electric system, and to offer an Schedule FIT Agreement to a Renewable Energy Generator that applies for interconnection of such Renewable Energy Generating Facility to the electric system of the Company under this Schedule, shall not apply with respect to a Renewable Energy Generator that applies for interconnection of a Renewable Energy Generating Facility to the electric system of the Company under this Schedule after the time at which the Company has received applications for interconnection of Renewable Energy Generating Facilities, each having an

Electrical Capacity of 20 kilowatts or more, and having an aggregate Electrical Capacity that equals or exceeds 4.75 per cent of the 2008 peak demand for such electrical system.

Queuing Procedures:

Applications to interconnect a Renewable Energy Generating Facility in parallel with the Company's electric system will be processed in accordance with the queuing procedures in Appendix II.

An independent third party shall oversee the queuing process for Renewable Energy Generating Facilities eligible for feed-in tariff rates of compensation under this Schedule. The independent third party shall assist in developing the queuing process, and inform parties of the queue length and their status in the queue. The independent third party shall also monitor how the Company administers the queue.

Renewable Energy Certificates:

Any certificate, credit, allowance, green tag, or other transferable indicia or environmental attribute, verifying the generation of a particular quantity of energy from a Renewable Energy Source, indicating the generation of a specific quantity of Renewable Energy by a Renewable Energy Generating Facility, or indicating a Renewable Energy Generator's ownership of any environmental attribute associated with such generation, is the property of, and shall inure to the benefit of, the Company for the benefit of ratepayers.

Reporting Requirements of the Company

The Company shall file, on a calendar year basis, an annual report that contains the following information on the status of its performance of its obligations under this Schedule:

(a) Number of project applications received by island, by resource type, by project size, and interconnection process (Rule 14H or IRS at sub-transmission level).

(b) Number and status of projects currently in the queue by island, by resource type, and by project size.

(c) Number of projects completed, interconnected, and contract signed by island, by resource type, and by project size.

(d) Total kilowatt-hours purchased through FITs during the calendar year by island, by project, and by project size.

(e) Total amount in dollars of the power purchased through FITs during the calendar year by island, by project, and by project size.

(f) Number and duration of curtailments and the reason for each curtailment during the year by island and by project.

(g) Program administration information such as the time spent to complete processing a project application from date of receipt of contract application to interconnecting the project in the system – by island, by resource type, and by project size.

Reporting Requirements of the Renewable Energy Generator

Each Renewable Energy Generator that owns a Renewable Energy Generating Facility having an Electrical Capacity greater than 20 kilowatts shall file, within 30 days of the placement in service of such Renewable Energy Generating Facility, in the Commission's FIT docket, subject to protective order, a report that contains the following information on such Renewable Energy Generating Facility:

(a) The cost of project design, permitting, and construction costs, including labor and materials costs;

(b) Financing or capital cost;

(c) Land cost or actual cost of site acquisition;

(d) Interconnection and metering costs incurred by the Renewable Energy Generator;

(e) Other project costs incurred in developing and constructing the project;

(f) Tax credits, rebates, incentives received and applied to the development cost of the project;

(g) Maintenance and operation labor and non-labor costs;

(h) Fuel supply costs (for biomass and biogas projects);

(i) Monthly land or site leases; and

(j) Other operations and maintenance costs.

Each such Renewable Energy Generator also shall file, no later than January 31 of each year, an annual report with the Commission in the FIT docket, that contains the following information with respect to such Renewable Energy Generating Facility:

(a) annual electricity production in kWh; and

(b) annual operating costs, including operations and maintenance costs, lease expenses, insurance, and property taxes.

APPENDIX I

STANDARD SCHEDULE FIT AGREEMENT

This Standard Schedule FIT Agreement ("Agreement") is made on _____, and entered into by and between _____ ("Seller") and _____ ("Company"), sometimes also referred to herein jointly as "Parties" or individually as "Party."

This Agreement is applicable only to sellers who own, operate, manage, control and/or use a Renewable Energy Generating Facility ("Facility") as set forth in the Company's Schedule FIT relating to Feed-in Tariff purchases from renewable energy generators, and only to the Facility described and installed at the following location: _____.

This Agreement provides for (1) Seller's interconnection and operation of the Facility in parallel with the Company's distribution system ("System"), and (2) the Company's purchase of and payment for (a) all electrical energy generated by the Facility and delivered to the Company's System at the point of interconnection ("Point of Interconnection"), and (b) all electrical energy that would have been generated by the Facility and delivered to the Company's System at the Point of Interconnection, but for curtailment by the Company of such generation and/or delivery.

In consideration of the premises and the respective promises herein, the Company and the Seller hereby agree as follows:

1. Interconnection: The Company shall interconnect the Facility for operation in parallel with the Company's System in accordance with Schedule FIT and the Company's rules filed with the Hawaii Public Utilities Commission, and not by this Agreement.

2. Purchase of Energy by the Company; Billing and Payment:

   (a) The Company shall purchase from the Seller and pay the Seller for all electrical energy generated by the Facility and delivered to the Company's System at the Point of Interconnection and all electrical energy that would have been generated by the Facility and delivered to the Company's System at the Point of Interconnection, but for curtailment by the Company of such generation and/or delivery, pursuant to the terms and conditions of the applicable Schedule FIT rate schedule and Appendix C attached hereto commencing from the initial delivery of energy under this Agreement to the Company's System (the "Commercial Operation Date").

   (b) The amount of energy that would have been generated by the Facility and delivered to the Company's System at the Point of Interconnection, but for curtailment by the Company of such generation and/or delivery shall be calculated by: (i) measuring the

amount of hydrological flow, solar radiation, wind velocity or baseline energy source, as the case may be, at or immediately near the point of contact with the Facility during periods of curtailment and periods of non-curtailment, (ii) measuring the amount of energy generated by the Facility during periods of non-curtailment, (iii) determining the arithmetic relationship between the measured amounts of hydrological flow, solar radiation, wind velocity or baseline energy source, as the case may be, during periods of non-curtailment and the measured amounts of energy generated by the Facility during periods of non-curtailment, and (iv) using such arithmetic relationship to calculate the amount of energy that would have been generated by the Facility during periods of curtailment based on such measured amounts of hydrological flow, solar radiation, wind velocity or baseline energy source, as the case may be, during periods of curtailment.

(c) Seller shall sell all electricity generated by the Facility, in excess of any energy consumed by the Facility, to the Company for the entire term of this Agreement. Seller shall not sell such electricity to third parties or attempt to renegotiate the terms and conditions of this Agreement during the FIT Term.

(d) Seller shall render an invoice to the Company for energy purchased, and the Company shall pay to Seller the amount stated in such invoice, including any State of Hawaii general excise tax or use tax thereon, no later than 20 days after the date of such invoice.

3. Purchase of Energy by the Company from the Seller: Purchases of energy by the Company from the Seller shall be governed by the applicable Schedule FIT rate schedule and the Company's rules filed with the Hawaii Public Utilities Commission ("Commission") and not by this Agreement.

4. Interconnection: A Seller that applies, pursuant to Schedule FIT, to interconnect a Facility for operation in parallel with Company's System shall execute the FIT Standard Interconnection Agreement attached as Appendix B to this Agreement and shall comply at all times with the provisions of Appendix III to Schedule FIT (Renewable Energy Generating Facility Reliability Standards: Technical Requirements for Interconnection) prior to operating the Facility in parallel with the Company's System. Nothing in this provision shall affect the Company's right to refuse or discontinue service as provided in the Company's Tariff Rules 7.A.1 and 2. An application by a Seller to interconnect a Facility for operation in parallel with the Company's electric system under the Schedule FIT will be processed in accordance with the procedures for queuing approved by the Commission.

5. Personnel and System Safety: Notwithstanding any other provisions of this Agreement or the Appendices thereto, if at any time the Company determines that the continued operation of the Seller's Facility may endanger any person or property, the Company's electric system or have an adverse effect on the safety of the Company's other customers, the Company shall have the right to disconnect Seller's Facility from the Company's electric system. The Seller's Facility shall remain disconnected until such time as the Company is satisfied that the endangering condition(s) has been corrected.

6. Metering; Instrumentation: The Company will supply, own, and maintain all necessary meters and associated equipment utilized for billing and energy purchase. The meters will be tested and read in accordance with the Commission's and Company's rules. The Seller shall supply, at no expense to the Company, a suitable location for meters and associated equipment used for billing and energy purchase, in accordance with the Company's tariff.

The Seller will supply instrumentation for measuring the amount of hydrological flow, solar radiation, wind velocity or baseline energy source, as the case may be, at or immediately near the point of contact with the Facility. Such instrumentation shall be owned and maintained by the Seller or a third party engaged by the Seller. The Company may have such instrumentation tested at any time by a Commission-approved third-party testing authority to verify the accuracy of such measurements within a maximum range of error of ± ___ %. If the measurements are within the maximum range of error, the Company shall pay the costs of such testing. If such measurements exceed the maximum range of error, the Seller shall pay the costs of testing and refund to the Company any overpayments to the extent of any mis-measurements accruing during the interval between the current testing and the next most recent testing of the instrumentation.

7. Term: Except as otherwise provided herein, this Agreement shall become effective upon execution by the two parties ("Execution Date") and shall remain in effect for a term of twenty years ("FIT Term").

During a period commencing 6 months prior to the conclusion of the FIT Term and ending upon the conclusion of such FIT Term, the Seller shall be obliged to offer to sell electricity generated by the Facility to the Company on an annual basis at the feed-in tariff rate of compensation (in cents per kilowatt-hour) set forth in the Schedule FIT as in effect upon the conclusion of such FIT Term. If the Company does not accept such offer during such period, the Seller shall have the right to sell such electricity at any rate of compensation to any person, or to sell such electricity at the PURPA avoided-cost rate to the Company if the Seller is eligible to do so.

8. Termination for Cause: (a) The Company shall have the right to terminate this Agreement if, during the FIT Term:

(1) The Seller, by act or omission, materially breaches or defaults on any material covenant, condition or other provision of this Agreement, and fails to cure such breach or default within thirty (30) days after written notice of such breach or default from the Company, unless (i) such breach or default is due to Force Majeure, provided, however, that if the Seller does not cure such breach or default resulting from Force Majeure within 180 days of such notice, the Company may terminate this Agreement; or, (ii) such breach or default cannot be cured within thirty (30) days and the Seller is making diligent efforts to cure such breach or default, provided, however, that if such breach or default is not cured within 180 days of such notice, the Company may terminate this Agreement; or

(2) The Seller abandons the construction or operation of the Facility.

(b) Before terminating this Agreement for cause, the Company shall give written notice to the Seller of the existence of one or more of the above conditions allowing termination for cause and of the Company's intention to exercise its termination rights if the condition is not corrected to the satisfaction of Company. Upon receipt of the Company's notice of intent to terminate for cause, the Seller shall have thirty (30) days in which to correct the noted condition to the satisfaction of the Company.

(c) The Seller may terminate the Agreement if the Company, by act or omission, materially breaches or defaults on any material covenant, condition or other provision of this Agreement, and fails to cure such breach or default within thirty (30) days after written notice of such breach or default from the Seller, unless (i) such breach or default is due to Force Majeure, provided, however, that if the Company does not cure such breach or default within 180 days of such notice, the Seller may terminate this Agreement; or, (ii) such breach or default cannot be cured within thirty (30) days and the Company is making diligent efforts to cure such breach or default, provided, however, that if such breach or default is not cured within 180 days of such notice, the Seller may terminate this Agreement. Each Tier 2 Seller and each Tier 3 Seller shall be obliged to provide at least 3 months' advance to the Company and the Commission prior to ceasing operation of the Facility for reasons other than Force Majeure events. Any such Seller that fails to provide such notice shall be subject to penalties to be determined and approved by the Commission.

9. Indemnification: (a) The Seller shall indemnify, defend and hold harmless the Company and its directors, officers, employees and agents (including but not limited to affiliates and contractors and their employees) from and against any and all liabilities, damages, losses, penalties, claims, demands, suits, costs, expenses (including attorneys' fees), and proceedings of every kind, including those for damage to the property or real property of any person or entity (including the Seller) and/or for injury to or death of any person (including the Seller's employees and agents)(collectively "Injury or Damage"), directly or indirectly arising out of or attributable to or in any manner connected with the engineering, design, location, construction, maintenance, interconnection, or parallel operation of the Seller's Facility with the Company's System, and/or directly or indirectly arising out of or attributable to or in any manner connected with the breach of any of Seller's representations or warranties herein, except to the extent that such Injury or Damage is attributable to the gross negligence or willful misconduct of the Company.

(b) The Company shall indemnify, defend and hold harmless the Seller and its directors, officers, employees and agents (including but not limited to affiliates and contractors and their employees) from and against any and all liabilities, damages, losses, penalties, claims, demands, suits, costs, expenses (including attorneys' fees), and proceedings of every kind, including those for damage to the property or real property of any person or entity (including the Company) and/or for injury to or death of any person (including the Company's employees and agents)(collectively "Injury or Damage"), directly or indirectly arising out of or attributable to or in any manner connected with the engineering, design, location, construction, maintenance, interconnection, or parallel operation of the Company's System with the Seller's Facility, and/or directly or indirectly arising out of or attributable to or in any manner connected with the breach of any of the Company's representations or warranties herein, except to the extent that such Injury or Damage is attributable to the gross negligence or willful misconduct of the Seller.

(c) Nothing in this Agreement shall create any duty to, any standard of care with reference to, or any liability to any person not a party to it.

10. Insurance: The Seller shall, at its own expense and during the term of the Agreement and any other time that the Seller's facility is interconnected with the Company's System, maintain in effect with a responsible insurance company authorized to do insurance business in Hawaii, the following insurance that will protect the Seller and the Company with respect to the Seller's Facility, the Seller's operations, and the Seller's interconnection with the Company's System:

Tier 1: A commercial general liability policy covering bodily injury and property damage combined single limit of at least FIVE HUNDRED THOUSAND DOLLARS ($500,000) for any occurrence.

Tier 2 and Tier 3: A commercial general liability policy covering bodily injury and property damage combined single limit of at least TWO MILLION DOLLARS ($2,000,000) for any occurrence.

The Seller has responsibility to determine if higher limits are desired and purchased. Said insurance shall name the Company as an additional insured, shall include contractual liability coverage for written contracts and agreements including this Agreement, and shall be non-cancelable and non-alterable without thirty (30) days' prior written notice to the Company. "Claims made" policies are not acceptable. The insurance required hereunder shall provide that it is primary with respect to the Seller and the Company. The Seller shall provide evidence of such insurance, including insurer's acknowledgement that coverage applies with respect to this Agreement, by providing certificates of insurance to the Company within 30 days of any change. Initially, certificates of insurance must be provided to the Company prior to executing this Agreement and any parallel interconnection. The Seller's indemnity and other obligations shall not be limited by the foregoing insurance requirements. Any deductible shall be the responsibility of the Seller.

11. Assignment: This Agreement may not be assigned by either the Company or the Seller absent the written consent of the other party. Such consent shall not be unreasonably withheld.

12. Hawaii Public Utilities Commission: This Agreement shall, at all times, be subject to such changes or modifications by the Commission as said Commission, may, from time to time, direct in the exercise of its jurisdiction.

13. Force Majeure: (a) If either party shall be wholly or partially prevented from performing any of its obligations under this Agreement by reason of or through strikes, lightning, rain, earthquake, wind, riots, fire, flood, invasion, insurrection, lava flow or volcanic activity, tidal wave, civil commotion, the order of any court, judge or civil authority, war, any act of God or the public enemy, or any other similar or dissimilar cause reasonably beyond its exclusive control and not attributable to its neglect, then and in any such event, either party shall be excused from whatever performance is prevented by such event to the extent so prevented, and either party shall not be liable for any damage or loss resulting therefrom.

(b) Force Majeure does not include:

(i) any acts or omissions of any third party, including, without limitation, any vendor, materialman, customer, or supplier of Seller, unless such acts or omissions are themselves excused by reason of Force Majeure;

(ii) any full or partial curtailment in the electric output of the Seller's Facility that is caused by or arises from a mechanical or equipment breakdown or other mishap or events or conditions attributable to normal wear and tear or flaws, unless such mishap is caused by Force Majeure;

(iii) Seller's inability to obtain Permits or approvals of any type for the construction, operation, or maintenance of Seller's Facility;

(iv) litigation or administrative or judicial action pertaining to this Agreement, the Site, the Facility, the acquisition, maintenance or renewal of financing or any Permits, or the design, construction, maintenance or operation of the Facility or the Company's System;

(v) any full or partial curtailment in the delivery of the output of the Seller or of the ability of the Company to accept output from the Seller which is caused by any third party including, without limitation, any vendor or supplier of the Seller or the Company, except to the extent due to Force Majeure.

14. Warranties: (a) The Seller represents and warrants as follows:

(i) The Seller has all necessary right, power and authority to execute, deliver and perform this Agreement.

(ii) The execution, delivery and performance of this Agreement by the Seller will not result in a willful violation of any law or regulation of any governmental authority, or conflict with, or result in a breach of, or cause a default under, any agreement or instrument to which the Seller is a party or by which it is bound.

(b) The Company represents and warrants as follows:

(i) The Company has all necessary right, power and authority to execute, deliver and perform this Agreement.

(ii) The execution, delivery and performance of this Agreement by the Company will not result in a willful violation of any law or regulation of any governmental authority, or conflict with, or result in a breach of, or cause a default under, any agreement or instrument to which the Company is a party or by which it is bound.

15. Dispute Resolution:

Before submitting any claims, controversies or disputes ("Dispute(s)") under this Agreement to the Dispute Resolution Procedure set forth herein , the presidents, vice presidents, or authorized delegates from both Seller and Company having full authority to settle the Dispute(s), shall personally meet in Hawaii and attempt in good faith to resolve the Dispute(s) (the "Management Meeting").

(a) Arbitration. If any Disputes remain unresolved after such Management Meeting concludes, the parties agree to submit any such Dispute(s) to binding arbitration in Honolulu, Hawaii pursuant to the administration by, and in accordance with the Arbitration Rules, Procedures, and Protocols of, Dispute Prevention & Resolution, Inc. then in effect ("Arbitration Rules"). Capitalized and otherwise undefined terms in this Section 15 shall have the meanings set forth in the Arbitration Rules. The award of the arbitrator(s) is binding upon the parties and judgment upon the award rendered may be entered in any court of competent jurisdiction. In the event that Dispute Prevention & Resolution, Inc. or its successor is unable or unwilling to administer the arbitration at the time the dispute is submitted for binding arbitration, the parties agree to submit any such Dispute(s) to binding arbitration in Honolulu, Hawaii pursuant to the administration by, and in according with the Commercial Arbitration Rules of the American Arbitration Association. All references herein to the "Arbitration Rules" shall then be deemed to be references to the Commercial Arbitration Rules or the provisions thereof most similar to the referenced provision of the Arbitration Rules.

(b) Procedures for Appointing Arbitrator(s). The parties hereby agree that arbitrator(s) shall be appointed according to the following procedure, notwithstanding any contrary or inconsistent provision of the Arbitration Rules.

(1) Single Arbitrator. Within 20 calendar days of the initiation of arbitration and the receipt by Respondent of the Demand for Arbitration, the parties shall attempt to agree on a single arbitrator.

(2) Three-Arbitrator Panel. Should the parties fail to agree on a single arbitrator within that 20-calendar day period, each party may appoint one arbitrator within 14 calendar days thereafter pursuant to the Arbitration Rules. If any party does not appoint an arbitrator within that 14-calendar day period, Dispute Prevention & Resolution, Inc. shall appoint one or both of the arbitrator(s), as appropriate. Within 20 calendar days of the appointment of the second arbitrator, the two appointed arbitrators shall attempt to agree upon the appointment of a third arbitrator. If the two appointed arbitrators fail to agree upon the appointment of the third arbitrator within this 20-calendar day period, Dispute Prevention & Resolution, Inc. shall appoint the third arbitrator.

(c) Authority of the Arbitrator(s)s. Notwithstanding anything herein or in the Arbitration Rules to the contrary, all documents shall be produced and all depositions shall be taken in Honolulu, Hawaii, and that any deposition fees and travel expenses of all hearing witnesses and deponents named by, affiliated with or formerly affiliated with a party or any of its affiliates, or its affiliate's affiliate, shall be borne by that party. The parties warrant they shall cause such documents, witnesses and deponents to

appear in Honolulu, Hawaii notwithstanding any objection as to the jurisdiction of the arbitration panel, the location of the arbitration, or lack of privity with a party or that the witness is not a party to the RAC or to the arbitration, and the arbitrator(s) shall have no power to order to the contrary. Notwithstanding anything herein or in the Arbitration Rules to the contrary, the authority of the arbitrator(s) in rendering the award is limited to the interpretation and/or application of the terms of this Agreement and to ordering any remedy allowed by this Agreement. The arbitrator(s) shall have no power to change any term or condition of this Agreement, deprive any party of a remedy expressly provided hereunder, or provide any right or remedy that has been excluded hereunder. Notwithstanding anything herein or in the Arbitration Rules to the contrary, any party who contends that the award was in excess of the authority of the arbitrator(s) as set forth herein may seek judicial relief in the Circuit Court of the State of Hawaii for the circuit in which the arbitration hearing was held, provided that such judicial proceeding is initiated within 30 calendar days of the award and not otherwise.

(d) No Punitive or Exemplary Damages. Notwithstanding anything herein or in the Arbitration Rules to the contrary, and pursuant to Hawaii Revised Statutes § 658A-4, the parties hereby waive any and all claims for punitive or exemplary damages with respect to any and all Dispute(s).

17. Regulatory Compliance:

Each Tier 2 Seller and each Tier 3 Seller must file in Docket No. 2008-0273, subject to protective order, the following information for each FIT project, within thirty (30) days of the project entering service and annually thereafter.

(a) The cost of project design, permitting, and construction costs, including labor and materials costs;
(b) Financing or capital cost;
(c) Land cost or actual cost of site acquisition;
(d) Interconnection and metering costs incurred by the project developer;
(e) Other project costs incurred in developing and constructing the project;
(f) Tax credits, rebates, incentives received and applied to the project development cost;
(g) Maintenance and operation labor and non-labor costs;
(h) Fuel supply costs (for biomass and biogas projects);
(i) Monthly land or site leases; and
(j) Other operations and maintenance costs.

Additionally, each Tier 2 Seller and each Tier 3 Seller must file an annual report with the Commission in Docket No. 2008-0273, no later than January 31, of each year, which contains the following information: (1) annual electricity production in kWh; and (2) annual operating costs, including operations and maintenance costs, lease expenses, insurance, and property taxes.

17. Miscellaneous:

(a) Amendments. Any amendment or modification of this Agreement or any part hereof shall not be valid unless in writing and signed by the parties. Any waiver hereunder shall not be valid unless in writing and signed by the party against whom waiver is asserted.

(b) Binding Effect. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors, legal representatives, and permitted assigns.

(c) Notices. Any written notice provided hereunder shall be delivered personally or sent by registered or certified first class mail, with postage prepaid, to the other party at the following address:

Company:

1) By Mail:

_____
_____
_____
Attn: _____

2) Delivered:

_____
_____
_____
Attn: _____

3) By facsimile:

_____
(808) ___-_____

Seller:

i. By Mail:

_____
_____
_____
Attn: _____

ii. Delivered:

_____
_____
_____
Attn: _____

iii. By facsimile:

_____
(808) ___-_____

Notice sent by mail shall be deemed to have been given on the date of actual delivery or at the expiration of the fifth day after the date of mailing, whichever is earlier. Any party hereto may change its address for written notice by giving written notice of such change to the other party hereto.

Any notice delivered by facsimile must be followed by personal or mail delivery and the effective date of such notice shall be the date of personal delivery or, if by mail, the earlier of the actual date of delivery or the expiration of the fifth day after the date of mailing.

(d) Effect of Section and Appendix Headings. The headings or titles of the several sections and appendices hereof are for convenience of reference and shall not affect the construction or interpretation of any provision of this Agreement.

(e) Non-Waiver. No delay or forbearance of the Company or the Seller in the exercise of any remedy or right will constitute a waiver thereof, and the exercise or partial exercise of a remedy or right shall not preclude further exercise of the same or any other remedy or right.

(f) Relationship of the Parties. Nothing in this Agreement shall be deemed to constitute either party hereto as partner, agent or representative of the other party or to create any fiduciary relationship between the parties. The Seller does not hereby dedicate any part of the Seller's Facility to serve the Company, the Company's customers or the public.

(g) Entire Agreement. This Agreement, including the Definitions set forth in Appendix A, constitutes the entire understanding and agreement between the parties.

(h) Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Hawaii. The venue for a civil action related to this Agreement shall be the judicial circuit in which the Seller's Facility is located.

(i) Limitations. Nothing in this Agreement shall limit the Company's ability to exercise its rights as specified in the Company's Tariff as filed with the Commission, or as specified in General Order No. 7 of the Commission's Standards for Electric Utility Service in the State of Hawaii, as either may be amended from time to time.

(j) Further Assurances. Each of the parties shall from time to time and at all times do such further acts and deliver all such further documents and assurances as shall be reasonably necessary fully to perform and carry out this Agreement.

(k) Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same agreement.

(l) Definitions. Terms used in this Agreement not otherwise defined in the context in which they first appear are defined in Appendix A to this Agreement.

(m) Severability. If any term or provision of this Agreement, or the application thereof to any person, entity or circumstances is to any extent invalid or unenforceable, the remainder of this Agreement, or the application of such term or provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

(n) Settlement of Disputes. Except as otherwise expressly provided, any dispute or difference arising out of this Agreement or concerning the performance or the non-performance by either party of its obligations under this Agreement shall be determined in accordance with the dispute resolution procedures set forth in Section 15 of this Agreement.

(o) Environmental Credits. To the extent not prohibited by law, any Environmental Credit shall be the property of the Company; provided, however, that such Environmental Credits shall be to the benefit of the Company's ratepayers in that the value must be credited "above the line". Seller shall use all reasonable efforts to ensure such Environmental Credits are vested in the Company, and shall execute all documents, including, but not limited to, documents transferring such Environmental Credits, without further compensation, provided, however, that the Company agrees to pay for reasonable costs associated with such efforts and/or documentation.

(p) Appendices. Each Appendix is an essential and necessary part of this Agreement.

(q) Patents. Seller agrees that in fulfilling its responsibilities under this Agreement, it will not use any process, program, design, device or material that infringes on any United States patent. Seller agrees to indemnify, defend and hold harmless the Company from and against all losses, damages, claims, fees and costs, including but not limited to reasonable attorneys' fees and costs, arising from or incidental to any suit or proceeding brought against the Company for patent infringement arising out of Seller's performance under this Agreement.

(r) Notice of Revisions of Schedule FIT. The Company shall serve the Seller notice of any proposed revisions to its Schedule FIT that it files with the Commission within five (5) business days after the proposed revision is filed with the Commission.

IN WITNESS WHEREOF, the Parties hereto have caused two originals of this Agreement to be executed by their duly authorized representatives. This Agreement is effective as of the latter of the two dates set forth below.

SELLER

By: _____

Name: _____

Title: _____

Date: _____

COMPANY

By: _____

Name: _____

Title: _____

Date: _____

By: _____

Name: _____

Title: _____

Date: _____

APPENDIX A

DEFINITIONS

Baseline Energy: energy generated or produced from wind, sun, falling water, biogas (including landfill and sewage-based digester gas), geothermal, ocean water, currents, and waves, including ocean thermal energy conversion, biomass (including biomass crops, agricultural and animal residues and wastes, and municipal solid waste and other solid waste), and hydrogen produced from renewable resources, other than Renewable Energy generated by a Photovoltaic Generating Facility, a Concentrating Solar Power Facility, an Onshore Wind Generating Facility or an In-line Hydropower Generating Facility.

Baseline Generating Facility: A Renewable Energy Generating Facility that generates electricity from Baseline Energy.

Commercial Operation Date: The date on which Seller's Facility first achieves Commercial Operations.

Company's System: The electric system owned and operated by the Company consisting of power plants, transmission and distribution lines, and related equipment for the production and delivery of electric power to the public.

Concentrating Solar Power Facility: A Renewable Energy Generating Facility that generates electricity by concentrating solar radiation to heat a working fluid that drives a generator.

Day: Means a calendar day.

Design Capacity: The installed maximum nameplate alternating-current electricity generating capacity, in kilowatts, of a Renewable Energy Generating Facility.

Environmental Credits: Any certificate, credit, allowance, green tag, or other transferable indicia or environmental attribute, verifying the generation of a particular quantity of energy from a Renewable Energy Source, indicating the generation of a specific quantity of Renewable Energy by a Renewable Energy Generating Facility, or indicating a Renewable Energy Generator's ownership of any environmental attribute associated with such generation. Such Environmental Credits shall include, but not be limited to, emissions credits, including credits triggered because such Facility does not produce carbon dioxide when generating electric energy, or any renewable energy credit, but in all cases shall not mean tax credits.

Execution Date: Shall have the meaning set forth in Section 7 of this Agreement.

Facility: Shall have the same meaning as Renewable Energy Generating Facility.

FIT Term: Shall have the meaning set forth in Section 7 of this Agreement.

Force Majeure: Shall have the meaning set forth in Section 14 of this Agreement.

In-Line Hydropower: Hydroelectric generation that utilizes energy from a water pipeline system that is designed primarily to serve another functional purpose where a section of pipeline is replaced with a turbine-generator section.

In-Line Hydropower Generating Facility: A Renewable Energy Generating Facility that generates electricity from In-Line Hydropower.

Onshore Wind Generating Facility: Any Wind Generating Facility that is not located in an ocean water depth of 20 meters or more.

Photovoltaic Generating Facility: A Renewable Energy Generating Facility that uses photovoltaic material to generate electricity from solar radiation.

Permits: All permits, licenses, approvals, certificates, entitlements and other authorizations issued by Governmental Authorities required for the construction, ownership and operation of the Facility, and all amendments, modifications, supplements, general conditions and addenda thereto.

Point of Interconnection: The point of delivery of energy supplied by Seller to Company where Seller's Facility interconnects with Company's System.

PUC (Public Utilities Commission): The Public Utilities Commission of the State of Hawaii.

Renewable Energy: Electricity generated by a Renewable Energy Generating Facility from a Renewable Energy Source.

Renewable Energy Generating Facility: Any identifiable facility, plant, installation, project, equipment, apparatus, or the like, located in the State of Hawaii, placed in service after the effective date of this Schedule, and that generates Renewable Energy from a Renewable Energy Source.

Renewable Energy Generator: any person that owns, controls, operates, manages, or uses a Renewable Energy Generating Facility to generate Renewable Energy from a Renewable Energy Source.

Renewable Energy Source: Any of the following sources of energy: (a) In-Line Hydropower; (b) solar radiation; (c) wind; or (d) Baseline Energy.

Site: The parcel of real property on which the Facility will be constructed and located, including any easements, rights of way, surface use agreements and other interests or rights in real estate reasonably necessary for the construction, operation and maintenance of the Facility.

Term: The Term of this Contract is as defined in Section 7 of this Agreement.

Third Party: Any person or entity other than the Company or the Seller, and includes, but is not limited to, any subsidiary or affiliate of the Seller.

Wind Generating Facility: A Renewable Energy Generating Facility that generates electricity from wind.

APPENDIX B

SCHEDULE FIT STANDARD INTERCONNECTION AGREEMENT

THIS AGREEMENT ("Agreement") is made this _____ day of _____, 20__, by and between _____, hereinafter called the Company, and _____, hereinafter called the Seller.

WHEREAS, the Seller owns, operates, controls, manages and/or uses a renewable energy generating facility ("Facility"), as identified in Exhibit A and defined in Section 3 of this Agreement; and

WHEREAS, Seller desires to interconnect the Facility for operation in parallel with the Company's system upon the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises and the respective promises herein, the Company and the Seller hereby agree as follows:

1. Scope Of Agreement: This Agreement relates solely to the conditions under which the Company and the Seller agree that the Facility may be interconnected to the Company's system for operation in parallel with the Company's system.

2. Parallel Operation: The Facility may interconnect and operate in parallel with the Company's system in accordance with the terms and conditions of this Agreement.

3. Facility:

   (a) For the purposes of this Agreement, the "Facility" is defined as the facility, plant, installation, project, equipment, apparatus, or the like, owned, operated, controlled, managed and/or used by the Seller, that generates Renewable Energy from a Renewable Energy Source and that is to be interconnected with the Company's system for operation in parallel with the Company's system.

   (b) The Seller shall furnish, install, operate and maintain, at its cost, the interconnection facilities (such as circuit breakers, relays, switches, synchronizing equipment, monitoring equipment, and control and protective devices and schemes) identified in Exhibit B hereto ("Facility Owned By The Seller").

   (c) The point of interconnection is shown on the single-line diagram and three-line diagram (provided by the Seller and reviewed by the Company) which are attached to Exhibit B (provided that the three-line diagram is not required if the Facility's capacity is less than 30 kW).

(d) The Seller agrees to test the Facility, to maintain operating records, and to follow such operating procedures, as may be specified by the Company to protect the Company's system from damages resulting from the parallel operation of the Facility, including such testing, records and operating procedures as more fully described in Exhibit B attached hereto and made a part hereof.

(e) The Company may inspect the Facility, as more fully described in Exhibit B.

4. Interconnection Facilities Owned by the Company: The Company agrees to furnish, install, operate and maintain such interconnection facilities on its side of the point of interconnection with the Facility as required for parallel operation with the Facility and as more fully described in Exhibit C attached hereto and made a part hereof ("Interconnection Facilities Owned By The Company"). All such interconnection facilities shall be the property of the Company. Where portions of the Company Interconnection Facilities are located on the Seller's premises, the Seller shall provide, at no expense to the Company, a suitable location for and access to all such equipment. If a 120/240 Volt power source or sources are required, the Seller shall provide these at no expense to the Company.

5. Seller Payments: The Seller agrees to pay to the Company a reasonable non-refundable contribution for the Company's investment in the interconnection facilities described in Exhibit C, subject to the terms and conditions included in Exhibit C. The interconnection costs will not include the cost of any technical screening of the impact of the Facility on the Company's system, any interconnection requirements study costs, any system and feeder studies and technology verification studies performed by the Company, any project risk assessment costs including costs associated with curtailment studies, any substation specific to the Facility, any SCADA, control system and/or curtailment system specific to the Facility, and any utility system costs and upgrades other than line extension and transformation equipment specific to the Facility. and equipment at the customer site specific to the Facility.

6. Commencement of Producing Energy in Parallel: After this Agreement is executed, and the Facility Owned By The Seller and the Interconnection Facilities Owned By The Company are completed, the Facility may be operated in parallel with the Company's system, provided that the Seller has satisfied the conditions in Section 3 of Exhibit B of this Agreement.

7. Disconnection of Facility for Utility Reasons:

(a) Upon providing reasonable notice (generally not to be less than ten (10) business days for scheduled work), the Company may require the Seller to temporarily disconnect the Facility from the Company's system when necessary for the Company to construct, install, maintain, repair, replace, remove, investigate, test or inspect any of its equipment or other Sellers' equipment or any part of its system. If the Company determines that such disconnection is necessary because of an unexpected system emergency, forced

outage, operating conditions on its systems, or compliance with good engineering practices as determined by the Company, the Company will immediately attempt to notify the Seller or the Seller's designated representatives in person, by telephone, by electronic mail, or by facsimile, of the need to disconnect the Facility. Unless the emergency condition requires immediate disconnection as determined by the Company, the Company shall allow sufficient time for the Seller to manually disconnect the Facility.

(b) The Facility shall not energize a de-energized utility line under any circumstances, but may operate its Facility isolated from the utility system with an open tie point in accordance with Section 4.i of Appendix III to Schedule FIT.

(c) Following the completion of work and/or rectification of the emergency conditions by the Company, the Company shall reset the Seller's service breaker, if open, as soon as practicable and shall provide, within fifteen (15) business days or such other period as is mutually agreed upon in writing by the Company and the Seller, written documentation of the occurrence and nature of the Company's work and/or emergency condition, and of the disconnection of the Facility.

(d) The Company shall take reasonable steps to minimize the number and duration of such disconnections.

(e) The disconnection of the Facility under this Section 8 shall not be subject to standby service charges under the Company's Schedule SS Standby Service tariff.

(f) The Company may disconnect the Seller from the Company's system for failure by the Seller to disconnect the Facility under this Section 7, until such time that the Company's work or the system condition has been corrected and the normal system condition has been restored.

8. Personnel and System Safety: Notwithstanding any other provisions of this Agreement, the Company may disconnect the Facility from the Company's system, without prior notice to the Seller, (a) to eliminate conditions that constitute a potential hazard to the Company's personnel or the general public; (b) if pre-emergency or emergency conditions exist on the Company system; (c) if a hazardous condition relating to the Facility is observed by the Company's inspection; (d) if the Facility interferes with the Company's equipment or equipment belonging to other customers of the Company (including non-utility generating equipment); or (e) if the Seller of the Facility has tampered with any protective device. The Facility shall remain disconnected until such time as the Company is satisfied that the endangering condition(s) as listed above has been corrected, and the Company shall not be obligated to allow parallel operation of the Facility during such period. If the Company disconnects the Facility under this Section 8, it shall as soon as practicable notify the Seller in person, by telephone, by electronic mail, or by facsimile and provide the reason(s) why the Facility was disconnected from the

Company's system. Following the rectification of the endangering conditions, the Company shall provide, within fifteen (15) business days or such other period as is mutually agreed upon in writing by the Company and the Seller, written documentation of the occurrence of the endangering conditions, and of the disconnection of the Facility. The disconnection of a Seller's generating facility shall not be subject to standby service charges provided that the disconnection was caused by the utility or the utility's equipment. The procedure for determining the applicability of standby charges to a disconnection event shall be specified in the Company's Schedule SS Standby Service tariff.

9. Prevention of Interference: The Seller shall not operate equipment that superimposes a voltage or current upon the Company's system that interferes with the Company's operations, service to the Company's customers, or the Company's communication facilities. Such interference shall include, but not be limited to, overcurrent, voltage imbalance, and abnormal waveforms. If such interference occurs, the Seller must diligently pursue and take corrective action at its own expense after being given notice and reasonable time to do so by the Company. If the Seller does not take timely corrective action, or continues to operate the equipment causing interference without restriction or limit, the Company may disconnect the Seller's equipment from the Company's system.

10. Location of Metering: Where Company-owned metering is located on the Seller's premises, the Seller shall provide, at no expense to the Company, a suitable location for and access to all such metering.

11. Design Reviews and Inspections: The Company's review and authorization to allow the Facility to interconnect and operate in parallel with the Company's system shall not be construed as confirming or endorsing the Facility's design or as warranting the Facility's safety, durability or reliability. The Company shall not, by reason of such review or lack of review, be responsible for the equipment, including but not limited to, the safety, strength, adequacy, durability, reliability, performance, or capacity of such equipment.

12. Permits, Approvals, and Licenses: The Seller shall obtain, at its expense, any and all authorizations, approvals, permits, and licenses required for the construction and operation of the Facility and the interconnection with the Company's system, including but not limited to environmental permits, building permits, rights-of-way, or easements.

13. Term: This Agreement shall become effective when executed by the Seller and the Company and shall continue in effect for the duration of the FIT Term as defined in Seller's Schedule FIT Agreement.

14. Termination: The provisions for termination of this Agreement shall be the same as those set forth in Seller's Schedule FIT Agreement.

15. Disconnection and Survival of Obligations: Upon termination of this Agreement the Facility shall be disconnected from the Company's system. The termination of this Agreement shall not relieve the parties of their liabilities and obligations, owed or continuing at the time of the termination.

16. Indemnification:

(a) The Seller shall indemnify, defend and hold harmless the Company and its officers, directors, agents and employees, from and against all liabilities, damages, losses, fines, penalties, claims, demands, suits, costs and expenses (including reasonable attorney's fees and expenses) to or by third persons, including the Company's employees or subcontractors, for injury or death, or for injury to property, arising out of the actions or inactions of the Seller (or those of anyone under its control or on its behalf) with respect to its obligations under this Agreement, and/or arising out of the installation, operation and maintenance of the Facility and/or the Seller Interconnection Facilities, except to the extent that such injury, death or damage is attributable to the gross negligence or intentional act or omission of the Company or its officers, directors, agents or employees.

(b) The Company shall indemnify, defend and hold harmless the Seller, and its officers, directors, agents and employees, from and against all liabilities, damages, losses, fines, penalties, claims, demands, suits, costs and expenses (including reasonable attorney's fees and expenses) to or by third persons, including the Seller's employees or subcontractors, for injury or death, or for injury to property, arising out of the actions or inactions of the Company (or those of anyone under its control or on its behalf) with respect to its obligations under this Agreement, and/or arising out of the installation, operation and maintenance of the Company System and/or the Company Interconnection Facilities, except to the extent that such injury, death or damage is attributable to the gross negligence or intentional act or omission of the Seller or its officers, directors, agents or employees.

(c) Nothing in this Agreement shall create any duty to, any standard of care with reference to, or any liability to any person or entity not a party to it.

17. Insurance: The Seller shall, at its own expense and during the term of the Agreement and any other time that the Facility is interconnected with the Company's system, maintain in effect with a responsible insurance company authorized to do insurance business in Hawaii, insurance that will adequately protect the Seller and the Company with respect to risks arising under this Agreement, including the Facility's interconnection with the Company's system, as provided for in Seller's Schedule FIT Agreement. The Seller's indemnity and other obligations shall not be limited by this provision. Proof of such insurance, including certificates of insurance showing the form and amounts of coverage, must be provided to the Company prior to any parallel interconnection.

18. Force Majeure: For purposes of this Agreement, "Force Majeure Event" means any event: (a) that is beyond the reasonable control of the affected party; and (b) that the affected party is unable to prevent or provide against by exercising reasonable diligence, including the following events or circumstances, but only to the extent they satisfy the preceding requirements: acts of war, public disorder, insurrection, or rebellion; floods, hurricanes, earthquakes, lightning, storms, and other natural calamities; explosions or fires; strikes, work stoppages, or labor disputes; embargoes; and sabotage. If a Force Majeure Event prevents a party from fulfilling any obligations under this Agreement, such party will promptly notify the other party in writing, and will keep the other party informed on a continuing basis of the scope and duration of the Force Majeure Event. The affected party will specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the affected party is taking to mitigate the effects of the event on its performance. The affected party will be entitled to suspend or modify its performance of obligations under this Agreement, other than the obligation to make payments then due or becoming due under this Agreement, but only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of reasonable efforts. The affected party will use reasonable efforts to resume its performance as soon as possible.

19. Warranties: The Company and the Seller each represents and warrants respectively that:

(a) It has all necessary right, power and authority to execute, deliver and perform this Agreement.

(b) The execution, delivery and performance of this Agreement by it will not result in a violation of any law or regulation of any governmental authority, or conflict with, or result in a breach of, or cause a default under, any agreement or instrument to which such party is also a party or by which it is bound.

20. Miscellaneous:

(a) Amendments. Any amendment or modification of this Agreement or any part hereof shall not be valid unless in writing and signed by the parties. Any waiver hereunder shall not be valid unless in writing and signed by the party against whom waiver is asserted.

(b) Binding Effect. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors, legal representatives, and permitted assigns.

(c) Notices. Any written notice provided hereunder shall be delivered personally or sent by registered or certified first class mail, with postage prepaid, to the other party at the following addresses:

Company: _____

_____

_____
Attn: _____

Seller: The mailing address listed in Exhibit A attached hereto.

Notice sent by mail shall be deemed to have been given on the date of actual delivery or at the expiration of the fifth day after the date of mailing, whichever is earlier. Any party hereto may change its address for written notice by giving written notice of such change to the other party hereto.

(d) Effect of Section and Exhibit Headings. The headings or titles of the several sections and exhibits hereof are for convenience of reference and shall not affect the construction or interpretation of any provision of this Agreement.

(e) Relationship of Parties. Nothing in this Agreement shall be deemed to constitute any party hereto as partner, agent or representative of the other party or to create any fiduciary relationship between the parties.

(f) Entire Agreement. This Agreement constitutes the entire understanding and agreement between the Company and the Seller.

(g) Limitations. Nothing in this Agreement shall limit the Company's ability to exercise its rights or expand or diminish its liability with respect to the provision of electrical service pursuant to the Company's Tariff as filed with the State of Hawaii Public Utilities Commission ("PUC"), or the PUC's Standards for Electric Utility Service in the State of Hawaii, which currently are included in the PUC's General Order Number 7, as either may be amended from time to time.

(h) Governing Law and Regulatory Authority. This Agreement was executed in the State of Hawaii and must in all respects be governed by, interpreted, construed, and enforced in accordance with the laws thereof. This Agreement is subject to, and the parties' obligations hereunder include, operating in full compliance with all valid, applicable federal, state, and local laws or ordinances, and all applicable rules, regulations, orders of, and tariffs approved by, duly constituted regulatory authorities having jurisdiction.

(i) Multiple Counterparts. This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

IN WITNESS WHEREOF, the Company and the Seller have executed this Agreement as of the day and year first above written.

By _____
Name
Title
Date

By _____
Name
Title
Date

By _____
Name
Title
Date

"Company"

"Seller"

EXHIBIT A

DESCRIPTION OF SELLER'S GENERATING FACILITY

Section 1, Applicant Information

Seller

Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): Area Code _____ Number _____ (Evening) Area Code _____ Number _____
E-mail: _____ Account Number:
Facility Location (if different from above): _____
Facility Location Tax Map Key number): _____

Section 2, Generator Qualifications

Is Generator powered from a Nonfossil Fuel Source? ☐ Yes ☐ No

Type of Nonfossil Fuel Source: ☐ Solar ☐ Wind ☐ Hydro ☐ Biomass ☐ Geothermal

PV Array DC Rated Output: ☐ kW PV Array AC Rated Output: ☐ kW

Maximum Site Load without Gener_____ kW Maximum Generator Capability: _____ kW

Minimum Site Load without Generation: _____ kW Maximum Export: _____ kW

Section 3, Generator Technical Information

Type of Generator: ☐ Synchronous ☐ Induction ☐ Inverter-Based Generating Facility

Generator (or solar collector) Manufacturer, Model Name & Number: _____

(A copy of Generator Nameplate and Manufacturer's Specification Sheet may be substituted)

_____ Nameplate Rating in kW: _____

Operating Power Factor: _____

Inverter Manufacturer, Model Name & Number (if used): _____

(A copy of Inverter Nameplate and Manufacturer's Specification Sheet may be substituted)

_____ Rating in kW: _____

Operating Power Factor: _____

Number of Starts Per Day: _____ Maximum Starting kVA: _____

UF Trip Setting: _____ UF Time Delay (Secs) _____

Generator Grounding Method:

☐ Effectively Grounded ☐ Resonant Grounded
☐ Low-Inductance Grounded ☐ High-Resistance Grounded
☐ Low-Resistance Grounded ☐ Ungrounded

Generator Characteristic Data (for rotating machines):
(Not needed if Generator Nameplate and Manufacturer's Specification Sheet are provided)

Direct Axis Synchronous Reactance, X_d: _____ P.U.
Direct Axis Transient Reactance, X'_d: _____ P.U.
Direct Axis Subtransient Reactance, X''_d: _____ P.U.
Inertia Constant, H: _____ P.U.
Excitation Response Ratio: _____
Direct Axis Open-Circuit Transient Time Constant, T'do: _____ Seconds
Direct Axis Open-Circuit Subtransient Time Constant, T"do: _____ Seconds

Negative Sequence Reactance: _____ P.U.
Zero Sequence Reactance: _____ P.U.
KVA Base: _____

Fault Current Contribution of Generator: _____ Amps

Section 4, Interconnecting Equipment Technical Data

Will an interposing transformer be used between the generator and the point of interconnection? ☐ Yes ☐ No

Transformer Data (if applicable, for Seller Owned Transformer):
(A copy of transformer Nameplate and Manufacturer's Test Report may be substituted)

Size: ___ KVA. Transformer Primary: _____ Volts ☐ Delta ☐ Wye ☐ Wye Grounded

Transformer Secondary: _____ Volts ☐ Delta ☐ Wye ☐ Wye Grounded

Transformer Impedance: _____ % on _____ KVA Base

Transformer Fuse Data (if applicable, for Seller Owned Fuse):
(Attach copy of fuse manufacturer's Minimum Melt & Total Clearing Time-Current Curves)

At ☐ Primary Voltage ☐ Secondary Voltage

Manufacturer : _____ Type : _____ Size: _____ Speed: _____

Transformer Protection (if not fuse):

Please describe: _____

Interconnecting Circuit Breaker (if applicable):
(A copy of circuit breaker's Nameplate and Specification Sheet may be substituted)

Manufacturer : _____ Type: _____

Continuous Load Rating: _____ **(Amps)** Interrupting Rating: _____ **(Amps)** Trip Speed: _____ **(Cycles)**

Circuit Breaker Protective Relays (if applicable):
(Enclose copy of any proposed Time-Overcurrent Coordination Curves)

Manufacturer:	_____	Type:	_____	Style/Catalog No.:	_____	Proposed Setting:	_____
Manufacturer:	_____	Type:	_____	Style/Catalog No.:	_____	Proposed Setting:	_____
Manufacturer:	_____	Type:	_____	Style/Catalog No.:	_____	Proposed Setting:	_____
Manufacturer:	_____	Type:	_____	Style/Catalog No.:	_____	Proposed Setting:	_____
Manufacturer:	_____	Type:	_____	Style/Catalog No.:	_____	Proposed Setting:	_____

Current Transformer Data (if applicable):
(Enclose copy of Manufacturer's Excitation & Ratio Correction Curves)

Manufacturer:	_____	Type:	_____	Accuracy Class:	_____	Proposed Ratio Connection:	_____ /5
Manufacturer:	_____	Type:	_____	Accuracy Class:	_____	Proposed Ratio Connection:	_____ /5

Generator Disconnect Switch:

A generator disconnect device (isolation device) must be installed with features as described in the FIT Reliability Standards And Technical Requirements.

Manufacturer:	_____	Type:	_____	Catalog No.:	_____	Rated Volts: _____	Rated Amps: _____

Single or 3 Phase: _____ Mounting Location: _____

Section 5, General Technical Information

Enclose copy of site single-line diagram showing configuration and interconnection of all equipment, current and potential circuits and protection and control schemes.

Is Single-Line Diagram Enclosed? Yes ☐

Enclose copy of site relay list and trip scheme, which shall include all protection, synchronizing and auxiliary relays that are required to operate the Facility in a safe and reliable manner.

Are Relay List and Trip Scheme Enclosed? Yes ☐

Enclose copy of site three-line diagram (if the Facility's capacity is greater than or equal to 30 kW) showing potential transformer and current transformer ratios, and details of the Facility's configuration, including relays, meters, and test switches.

Is Three-Line Diagram Enclosed? Yes ☐

Section 6, Installation Details

Installing Electrical Contractor: _____ Firm: _____ License No.: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: Area Code: _____ Number: _____

Installation Date: _____ Interconnection Date: _____

Supply certification that the generating system has been installed and inspected in compliance with the local Building/Electrical code of the county of _____.

Signed (Inspector): _____ Date: _____

(In lieu of signature of Inspector, a copy of the final inspection certificate may be attached)

Section 7, Generator/Equipment Certification

Generating systems that utilize inverter technology must be compliant with *Institute of Electrical and Electronics Engineers IEEE Std 1547* and *Underwriters Laboratories UL 1741* in effect at the time this Agreement is executed. Generating systems that use a rotating machine must be compliant with applicable National Electrical Code, Underwriters Laboratories, and Institute of Electrical and Electronics Engineers standards and rules and orders of the Hawaii Public Utilities Commission in effect at the time this Agreement is executed. **By signing below, the Applicant certifies that the installed generating equipment meets the appropriate preceding requirement(s) and can supply documentation that confirms compliance.**

Signed (Seller): _____ Date: _____

Section 8, Insurance

Insurance Carrier: _____

EXHIBIT B

FACILITY OWNED BY THE SELLER

1. Facility

   a. Compliance with laws and standards. The Facility, Facility design, and Facility design drawings shall meet all applicable national, state, and local laws, rules, regulations, orders, construction and safety codes, and shall satisfy the Company's FIT Reliability Standards And Technical Requirements ("Reliability Standards").

   b. Avoidance of adverse system conditions. The Facility shall be designed, installed, operated and maintained so as to prevent or protect against adverse conditions on the Company's system that can cause electric service degradation, equipment damage, or harm to persons, such as:

      (i) Unintended islanding.

      (ii) Inadvertent and unwanted re-energization of a Company dead line or bus.

      (iii) Interconnection while out of synchronization.

      (iv) Overcurrent.

      (v) Voltage imbalance.

      (vi) Ground faults.

      (vii) Generated alternating current frequency outside of permitted safe limits.

      (viii) Voltage outside permitted limits.

      (ix) Poor power factor or reactive power outside permitted limits.

      (x) Abnormal waveforms.

c. Specification of protection, synchronizing and control requirements. The Seller shall provide the design drawings, operating manuals, manufacturer's brochures/instruction manual and technical specifications, manufacturer's test reports, bill of material, protection and synchronizing relays and settings, and protection, synchronizing, and control schemes for the Facility to the Company for its review, and the Company shall have the right to specify the protection and synchronizing relays and settings, and protection, synchronizing and control schemes that affect the reliability and safety of operation and power quality of the Company's system with which the Facility is interconnected ("Facility Protection Devices/Schemes"). After the implementation of the protection and synchronizing relays and settings, and protection, synchronizing and control schemes, the Company may require changes in the protection and synchronizing relays and settings, and protection, synchronizing and control schemes, when required by the Company's system operations, at the Company's expense. After the implementation of the protection and synchronizing relays and settings, and protection, synchronizing and control schemes, the Company may require changes in the protection and synchronizing relays and settings, and protection, synchronizing and control schemes, when required by the Facility's operations, at the Seller's expense.

d. Facility protection. The Seller is solely responsible for providing adequate protection for the Facility.

e. Seller Interconnection Facilities.

(i) The Seller shall furnish, install, operate and maintain interconnection facilities (such as circuit breakers, relays, switches, synchronizing equipment, monitoring equipment, and control and protective devices and schemes) designated by or acceptable to the Company as suitable for parallel operation of the Facility with the Company's system ("Seller Interconnection Facilities"). Such facilities shall be accessible at all times to authorized Company personnel.

(ii) The Seller shall comply with Appendix III of Schedule FIT (the Company's "Reliability Standards"). If a conflict exists between the Reliability Standards and this Agreement, the Reliability Standards will control.

(iii) A 1) single-line diagram, 2) relay list, trip scheme and settings of the Facility, 3) Facility Equipment List, and 4) three-line diagram (if the Facility's capacity is greater than or equal to 30 kW), which identify the circuit breakers, relays, switches, synchronizing equipment, monitoring equipment, and control and protective devices and schemes, shall, after having obtained prior consent from the Company, be attached to this Exhibit B and made a part hereof at the time the Agreement is signed. The single-line diagram shall include pertinent information regarding operation, protection, synchronizing, control, monitoring and alarm requirements. The single-line diagram and three-line diagram shall expressly identify the point of interconnection of the Facility to the Company's system. The relay list, trip scheme and settings shall include all protection, synchronizing and auxiliary relays that are required to operate the Facility in a safe and reliable manner. The three-line diagram shall show potential transformer and current transformer ratios, and details of the Facility's configuration, including relays, meters, and test switches.

f. Approval of Design Drawings. If the Facility's capacity is greater than or equal to 30 kW, the single-line diagram, relay list, trip scheme and settings of the Facility, and three-line diagram shall be approved by a Professional Electrical Engineer registered in the State of Hawaii prior to being submitted to the Company. Such approval shall be indicated by the engineer's professional seal on all drawings and documents.

2. Verification Testing.

a. Upon initial parallel operation of the Facility, or any time interface hardware or software is changed, a verification test of Seller Interconnection Facilities shall be performed by Seller. A qualified individual, hired or employed by the Seller, shall perform the verification testing in accordance with the manufacturer's published test

procedure. Qualified individuals include professional engineers, factory trained and certified technicians, and licensed electricians with experience in testing protective equipment. The Company reserves the right to witness verification testing or require written certification that the testing was performed.

b. Verification testing shall be performed every four years. All verification tests prescribed by the manufacturer shall be performed. If wires must be removed to perform certain tests, each wire and each terminal shall be clearly and permanently marked. The Seller shall maintain verification test reports for inspection by the Company.

c. Single-phase inverters rated 10 kVA and below (if any) shall be verified once per year as follows: once per year the Seller shall operate the load break disconnect switch and verify the Facility automatically shuts down and does not reconnect with the Company's system until the Company's system continuous normal voltage and frequency have been maintained for a minimum of 5 minutes. The Seller shall maintain a log of these operations for inspection by the Company.

d. Any system that depends upon a battery for trip power shall be checked once per month for proper voltage. Once every four (4) years the battery shall either be replaced or have a discharge test performed. The Seller shall maintain a log of these operations for inspection by the Company.

e. Tests and battery replacements as specified in this section 2 of Exhibit B shall be at the Seller's expense.

3. Inspection of the Facility.

a. The Company may, in its discretion and upon reasonable notice not to be less than 24 hours (unless otherwise agreed to by the Company and the Seller), observe the construction of the Facility (including but not limited to relay settings and trip schemes) and the equipment to be installed therein.

b. Within fourteen days after receiving a written request from the Seller to begin producing electric energy in parallel with the Company's system, the Company may inspect the Facility (including but not limited to relay settings and trip schemes) and observe the performance of the verification testing. The Company may accept or reject the request to begin producing electric energy based upon the inspection or verification test results.

c. If the Company does not perform an inspection of the Facility (including but not limited to relay settings and trip schemes) and observe the performance of verification testing within the fourteen-day period, the Seller may begin to produce energy after certifying to the Company that the Facility has been tested in accordance with the verification testing requirements and has successfully completed such tests. After receiving the certification, the Company may conduct an inspection of the Facility (including but not limited to relay settings and trip schemes) and make reasonable inquiries of the Seller, but only for

purposes of determining whether the verification tests were properly performed. The Seller shall not be required to perform the verification tests a second time, unless irregularities appear in the verification test report or there are other objective indications that the tests were not properly performed in the first instance.

d. The Company may, in its discretion and upon reasonable notice not to be less than 24 hours (unless an apparent safety or emergency situation exists which requires immediate inspection to resolve a known or suspected problem), inspect the Facility (including but not limited to relay settings and trip schemes) and its operations (including but not limited to the operation of control, synchronizing, and protection schemes) after the Facility commences operations.

4. Operating Records and Procedures.

a. The Company may require periodic reviews of the maintenance records, and available operating procedures and policies of the Facility.

b. The Seller must separate the Facility from the Company's system whenever requested to do so by the Company's System Operator pursuant to Sections 8 and 9 of the Agreement. It is understood and agreed that at times it may not be possible for the Company to accept electric energy due to temporary operating conditions on the Company's system, and these periods shall be specified by the Company's System Operator. Notice shall be given in advance when these are scheduled operating conditions.

c. Logs shall be kept by the Seller for information on unit availability including reasons for planned and forced outages; circuit breaker trip operations, relay operations, including target initiation and other unusual events. The Company shall have the right to review these logs, especially in analyzing system disturbance.

5. Changes to the Facility, Operating Records, and Operating Procedures.

a. The Seller agrees that no material changes or additions to the Facility as reflected in the single-line diagram, relay list, trip scheme and settings of the Facility, Facility Equipment List, and three-line diagram (if the Facility's capacity is greater than or equal to 30 kW), shall be made without having obtained prior written consent from the Company.

b. As a result of the observations and inspections of the Facility (including but not limited to relay list, trip scheme and settings) and the performance of the verification tests, if any changes in or additions to the Facility, operating records, and operating procedures and policies are required by the Company, the Company shall specify such changes or additions to the Seller in writing, and the Seller shall, as soon as practicable, but in no event later than thirty (30) days after receipt of such changes or additions, respond in writing, either noting agreement and action to be taken or reasons for disagreement. If the

Seller disagrees with the Company, it shall note alternatives it will take to accomplish the same intent, or provide the Company with a reasonable explanation as to why no action is required by good engineering practice.

Facility Equipment List

The Facility shall include the following equipment:

(This Facility Equipment List, together with the single-line diagram, relay list and trip scheme, and three-line diagram (if the Facility's capacity is greater than or equal to 30 kW), should be attached behind Exhibit B.

EXHIBIT C

INTERCONNECTION FACILITIES OWNED BY THE COMPANY

1. Description of Company Interconnection Facilities

The Company will purchase, construct, own, operate and maintain all interconnection facilities required to interconnect the Company's system with the Facility at ___ volts, up to the point of interconnection.

The Company Interconnection Facilities, for which the Seller shall pay, include:

[Need to specify the interconnection facilities. If no interconnection facilities, state "None".]

2. Seller Payment to Company for Company Interconnection Facilities

The Seller shall pay to the Company the total estimated interconnection cost to be incurred by the Company (Total Estimated Interconnection Cost), which is comprised of (i) the estimated cost of the Company Interconnection Facilities, (ii) the estimated engineering costs associated with developing the Company Interconnection Facilities. The following summarizes the Total Estimated Interconnection Cost:

Description	Estimated Cost ($)

[Need to specify the estimated interconnection cost. If no cost, state "None". If the Company determines that there are benefits to the utility system due to the Company interconnection facilities, a credit reflecting these benefits shall be provided to the Seller, subject to Commission approval. The amount of the credit reflecting these benefits, if any, would be reflected in this section of the Standard Interconnection Agreement.]

Total Estimated Interconnection Cost **$**

The Total Estimated Interconnection Cost, which, except as otherwise provided herein, is non-refundable, shall be paid by the Seller fourteen (14) days after receipt of an invoice from the Company, which shall be provided not less than thirty (30) days prior to start of procurement of the Company Interconnection Facilities.

Within thirty (30) days of receipt of an invoice, which shall be provided within fourteen (14) days of the final accounting, which shall take place within sixty (60) days of completion of construction of the Company Interconnection Facilities, the Seller shall remit to the Company the difference between the Total Estimated Interconnection Cost paid to date and the lesser of one hundred twenty percent (120%) of the Total Estimated Interconnection Cost or the total actual interconnection cost (Total Actual Interconnection Cost). The latter is comprised of (i) the total costs of the Company Interconnection Facilities, and (ii) the total engineering costs associated with

developing the Company Interconnection Facilities. If the Total Actual Interconnection Cost is less than the payments received by the Company as the Total Estimated Interconnection Cost, the Company shall repay the difference to the Seller within thirty (30) days of the final accounting.

If the Agreement is terminated prior to the Seller's payment for the Total Actual Interconnection Cost (or the portion of this cost which has been incurred) or prior to the Company's repayment of the overcollected amount of the Total Estimated Interconnection Cost (or the portion of this cost which has been paid), such payments shall be made by the Seller or Company, as appropriate. If payment is due to the Company, the Seller shall pay within thirty (30) days of receipt of an invoice, which shall be provided within fourteen (14) days of the final accounting, which shall take place within sixty (60) days of the date the Agreement is terminated. If payment is due to the Seller, the Company shall pay within thirty (30) days of the final accounting.

All Company Interconnection Facilities shall be the property of the Company.

3. Seller Use of Company Interconnection Facilities Upon Termination

Notwithstanding that all Company Interconnection Facilities are the property of the Company, upon termination of the Agreement, the Company shall identify any equipment paid for by the Seller that can feasibly be returned to the Seller. If Seller desires such equipment, Seller may acquire such equipment if Seller pays for the removal of the equipment and the restoration of the Company's system to the Company's satisfaction.

APPENDIX C

PURCHASE OF ENERGY BY COMPANY

1. Rate for Purchase of Energy. Subject to the provisions of this Agreement, the Company shall purchase and pay for energy generated by Seller's Facility and delivered by Seller to the Company, and for energy that would have been generated by the Facility and delivered to the Company's System, but for curtailment by the Company of such generation and/or delivery, at the rate set forth in Table C-1 below beginning from the Commercial Operation Date.

[Table C-1 placeholder]

Year	Rate
Years 1-20	$0.xxxx/kWh

APPENDIX II

Queuing and Interconnection Procedures

A Renewable Energy Generator shall apply for interconnection of a Renewable Energy Generating Facility under this Schedule FIT and for a Schedule FIT Agreement with the Company by submitting the following items (which set of items taken together shall constitute an "Application") to the Company:

(1) A Schedule FIT Standard Interconnection Agreement having the form set forth in Appendix B to the Standard Schedule FIT Agreement shown at Appendix I to this Schedule FIT and executed by the Renewable Energy Generator, including:

(a) A completed Description of Seller's Generating Facility, having the form set forth in Exhibit A to the Schedule FIT Standard Interconnection Agreement; and

(b) The items specified in sections 1.c and 1.e.(iii) of Exhibit B to the Schedule FIT Standard Interconnection Agreement;

(2) A Standard Schedule FIT Agreement having the form set forth in Appendix I to this Schedule FIT and executed by the Renewable Energy Generator;

(3) Proof of Site Control consisting of documentation demonstrating ownership, leasehold interest in, or a right to develop a site for the purpose of constructing a Renewable Energy Generating Facility, including demonstration that there is sufficient land area equal to at least 50% of that required to support the size and type of Renewable Energy Generating Facility;

(4) A non-refundable $5,000 Application fee;

(5) An initial deposit of $10,000 (the "Initial Deposit") applicable to the cost of performing any interconnection requirements study ("IRS") required under the FIT Reliability Standards set forth in Appendix III to this Schedule FIT in connection with the Renewable Energy Generating Facility;

The Company shall receive Applications during a period of twenty (20) consecutive business days to be specified by the Company (the "Application Period"). Upon receiving the Application, the Company will review the information and data provided to verify that the Application is complete and valid. The Company will send an acknowledgement of receiving a valid application or a request for additional information to the Renewable Generator within five (5) business days of receiving the Application.

If the aggregate Electrical Capacity of Renewable Energy Generating Facilities of less than 20 kilowatts, for which complete and valid Applications are received during the Application Period, exceeds the aggregate cap of .25 percent (.25%) of 2008 peak system demand set forth in

Schedule FIT (the ".25% Cap"), a queue of Applications eligible for continued processing under this queuing procedure (the ".25% Queue") shall be composed by using a random lottery to select Applications, from among such complete and valid Applications, up to the point at which the aggregate Electrical Capacity of such Renewable Energy Generating Facilities described in the queued Applications equals and does not exceed the .25% Cap. The order in which Applications are selected for the .25% Queue shall be the order in which such Applications continue to be processed under this queuing procedure (the ".25% Queuing Order").

If the aggregate Electrical Capacity of Renewable Energy Generating Facilities of less than 20 kilowatts, for which complete and valid Applications are received during the Application Period, does not exceed the .25% Cap, a random lottery shall be used to specify the order in which such Applications continue to be processed under this queuing procedure (the ".25% Queuing Order").

If the aggregate Electrical Capacity of Renewable Energy Generating Facilities of 20 kilowatts or more, for which complete and valid Applications are received during the Application Period, exceeds the aggregate cap of 4.75 percent (4.75%) of 2008 peak system demand set forth in Schedule FIT (the "4.75% Cap"), a queue of Applications eligible for continued processing under this queuing procedure (the "4.75% Queue") shall be composed by using a random lottery to select Applications, from among such complete and valid Applications, up to the point at which the aggregate Electrical Capacity of such Renewable Energy Generating Facilities described in the queued Applications equals and does not exceed the 4.75% Cap. The order in which Applications are selected for the 4.75% Queue shall be the order in which such Applications continue to be processed under this queuing procedure (the "4.75% Queuing Order").

If the aggregate Electrical Capacity of Renewable Energy Generating Facilities of 20 kilowatts or more, for which complete and valid Applications are received during the Application Period, does not exceed the 4.75% Cap, a random lottery shall be used to specify the order in which such Applications continue to be processed under this queuing procedure (the "4.75% Queuing Order").

The Company shall make a decision, based on the information contained in each Application eligible for continued processing under this queuing procedure, whether an IRS is required before the Renewable Energy Generating Facility described in the Application may be interconnected with the Company's system. The Company shall make such a decision, with respect to each such Application for a Renewable Energy Generating Facility of less than 20 kilowatts, in the .25% Queing Order. The Company shall make such a decision, with respect to each such Application for a Renewable Energy Generating Facility of 20 kilowatts or more, in the 4.75% Queing Order.

If the Company decides that no IRS is required, the Company shall refund the Initial Deposit to the Renewable Energy Generator.

If the Company decides that an IRS is required, the Renewable Energy Generator shall be required to pay an additional deposit of $40,000 (the "Additional Deposit") applicable to the cost of performing the IRS in connection with the Renewable Energy Generating Facility

The Initial Deposit and the Additional Deposit shall be refunded to the Renewable Energy Generator to the extent that the combined amount of the Initial Deposit and the Additional Deposit exceeds the actual costs of the IRS.

To remain eligible for continued processing under this queuing procedure, the Renewable Energy Generator must meet any two of the following four milestones, or their substitutes, within 12 months from the date on which the Company makes its decision whether an IRS is required with respect to the Renewable Energy Generating Facility described in the Application:

	Milestone	**Substitute for Milestone**
Equipment on Order	Demonstration that generation equipment has been ordered for the Renewable Energy Generating Facility	Deposit or Letter of Credit equal to the applied-for kilowatts times $250 per kilowatt
Necessary Permits	Application for state or local air, water, land or hydroelectric permits at least submitted and beginning to proceed through approval process	Deposit or Letter of Credit equal to the applied-for kilowatts times $250 per kilowatt
Board Approval	Approval to proceed with project from the Renewable Energy Generator's Board of Directors or its highest level of approval authority as determined by its governance structure	Deposit or Letter of Credit equal to the applied-for kilowatts times $250 per kilowatt
Deposit or Letter of Credit	Deposit or Letter of Credit equal to the applied-for kilowatts times $250 per kilowatt	

The Letter of Credit should clearly specify the "Issuer," the "Account Party," and the "Beneficiary (Company)," the term for which the Letter of Credit will remain open, and the dollar amount available. It should also include a statement as to the instructions and terms for funds disbursement. The party issuing the Letter of Credit must have a minimum corporate debt

rating of "A-" by S&P, "A3" by Moody's, and "A-" by Fitch. All costs associated with obtaining the Letter of Credit will be the responsibility of the Renewable Energy Generator.

Upon the Renewable Energy Generator meeting any two of the foregoing four milestones, or their substitutes, the Company shall be obliged to immediately execute the Interconnection Agreement and furnish the executed Interconnection Agreement to the Renewable Energy Generator, and shall be obliged to interconnect the Renewable Energy Generating Facility described in the Application, provided that the Renewable Energy Generator has complied with the Technical Requirements for Interconnection contained in the FIT Reliability Standards set forth in Appendix III to this Schedule FIT.

Upon the Renewable Energy Generator meeting any two of the foregoing four milestones, or their substitutes, the Company shall be obliged to immediately execute the Standard Schedule FIT Agreement and furnish the executed Standard Schedule FIT Agreement to the Renewable Energy Generator, and shall be obliged to purchase and pay for Renewable Energy with respect to the Renewable Energy Generating Facility described in the Application, subject to the requirements of Schedule FIT.

An Application shall be ineligible for continued processing under this queuing procedure, and any Interconnection Agreement and any Standard Schedule FIT Agreement executed by the Renewable Energy Generator and the Company shall terminate, upon the occurrence of any of the following events:

(1) the Renewable Energy Generator fails to pay the Company, within 3 months of Renewable Energy Generator's receipt of a final invoice from the Company for costs of performing any IRS payable by the Renewable Energy Generator under Schedule FIT, for the amount of such costs in excess of the combined amount of the Initial Deposit and the Additional Deposit;

(2) the Renewable Energy Generator fails to pay the Company within 6 months of the Renewable Energy Generator's receipt of an invoice from the Company for costs of network upgrades and interconnection facilities required by any IRS and payable by the Renewable Energy Generator under Schedule FIT;

(3) the Renewable Energy Generating Facility described in the Application fails to go into Commercial Operation within 24 months of the later of (a) completion of all network upgrades and interconnection facilities required by any IRS in connection with the Renewable Energy Generating Facility, or (b) the Company's execution of the Interconnection Agreement and the Standard Schedule FIT Agreement with respect to the Renewable Energy Generating Facility.

Suspension of any of the periods set forth in the immediately preceding paragraph shall be permitted only for Force Majeure reasons: "Any act of God, labor disturbance, act of the public enemy, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a party's control. A Force

Majeure event does not include an act of negligence or intentional wrongdoing by the party claiming Force Majeure."

APPENDIX III

Renewable Energy Generating Facility Reliability Standards

Technical Requirements for Interconnection

Objectives of Good Interconnection Practice

- **Safety** – To protect the safety of utility personnel, utility customers, and the public.
- **Reliability** – To maintain the reliability of the utility system for all utility customers.
- **Power Quality** – To provide for acceptable power quality[1] and voltage regulation on the utility system and for all utility customers.
- **Restoration** – To facilitate restoration of power on the utility system.
- **Protect Utility and Customer Equipment** – To protect utility and customer equipment during steady state and faulted system operating conditions.
- **Protect Generating Facilities** – To protect generating facilities from operation of utility protective and voltage regulation equipment.
- **Utility System Overcurrent Devices** – To maintain proper operation of the utility system's overcurrent protection equipment.
- **Utility System Operating Efficiency** – To ensure operation at appropriate power factors and minimize system losses.

[1] "Acceptable" power quality is power delivered to customers that does not impair operation of the customers' equipment or cause visible light flickering due to voltage fluctuations under normal operating conditions. One element of power quality is voltage flicker, which is a function of the magnitude of voltage fluctuation and the frequency at which the fluctuation occurs. Voltage flicker is described in Section 4.n. of this Appendix III .

Consistency with IEEE Standards

These technical interconnection standards are based on the requirements of IEEE[2] 1547-2003 *Standard for Interconnecting Distributed Resources with Electric Power Systems*. HECO intends to maintain consistency between its requirements for interconnection of distributed generating facilities and IEEE interconnection standards to the extent feasible, considering the specific design and operating requirements of HECO's electric power system.[3]

Customers are encouraged to review and discuss these technical interconnection standards with the utility before proceeding with their design and procurement of distributed generating facility equipment.

[2] IEEE – Institute of Electrical and Electronic Engineers.
[3] IEEE 1547-2003 does not address planning, designing, operating, or maintaining the area electric power system (IEEE 1547-2003, Section 1.3).

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1. Definitions

a. Active Anti-Islanding Scheme: A control scheme installed with the generating facility that prevents the formation of an unintended island by accelerating the drift in voltage and/or frequency to the respective trip points when the utility is not connected.

b. Clearing Time: The time between the abnormal voltage being applied and the generating facility ceasing to energize the utility distribution system.

c. Dedicated Transformer: A transformer that provides electrical service to a single customer.

d. Distribution System: All electrical wires, equipment, and other facilities at the distribution voltage levels (such as 25kV, 12kV, or 4kV) owned or provided by the utility, through which the utility provides electrical service to its customers.

e. Direct Transfer Trip: Automatic remote trip of a generating facility's circuit breaker or interrupting device by means of a communication channel that is acceptable to the utility.[4]

f. Generating Facility: Customer or utility-owned electrical power generation that is interconnected to the utility.

g. Induction Generator: A rotating machine generator that converts mechanical power to electrical power, in which the rotor current creating the magnetic field is supplied by an external AC source, usually the electric utility system.

h. Inverter System: A machine, device, or system that changes direct-current power to alternating-current power.

i. Network System: An electrical system in which two or more utility feeder sources are electrically tied together on the primary or secondary voltage level to form one power source for one or more customers. The network system is designed to provide higher reliability for customers connected to it.

j. Point of Interconnection: The point at which the utility and the customer interface occurs.

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[4] Acceptance of the communications channel depends upon the speed of the operation, availability (up time), reliability, security, and type of electrical interface equipment used. The criteria for selecting the type of acceptable communications are the levels of guaranteed priority for restoration response, maintenance, and system upgrades in order to maximize availability, reliability, and security. Other technical communications channel requirements are determined by the manufacturers of the electrical interface equipment used.

k. Short Circuit Contribution Ratio (SCCR): The ratio of the aggregate short circuit contribution of the generating facility to the short circuit contribution of the utility system (including all other generating facility sources), for a three-phase fault at the high side of the customer or utility transformer.

l. Subtransmission System: All electrical wires, equipment, and other facilities at the subtransmission voltage levels (such as 46kV, 35kV, or 23kV) owned or provided by the utility, through which the utility provides electrical service to its customers.

m. Supervisory Control: Remote monitoring and/or control of a generating facility's power output and interrupting device status by means of a communication channel (see footnote number 2) that is acceptable to the utility.

n. Synchronous Generator: A rotating machine generator that converts mechanical power into electrical power, in which the rotor current creating the magnetic field comes from a separate DC source or the generator itself.

o. Transmission System: All electrical wires, equipment, and other facilities at the transmission voltage levels (such as 138kV or 69kV) owned or provided by the utility, through which the utility provides electrical service to its customers.

p. Unintended Islanding: Islanding is a condition in which one or more generating facilities deliver power to a utility customer or customers using a portion of the utility's distribution system that is electrically isolated from the remainder of the utility's distribution system. Unintended islanding may occur following an unanticipated loss of a portion of the utility distribution system.

q. Utility-grade Protective Equipment: Protective equipment that meet requirements defined by:
   - ANSI/IEEE C37.90-1989 IEEE Standards for Relays and Relay Systems Associated with Electric Power Apparatus
   - IEEE C37.90.1 IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems
   - IEEE C37.90.2 IEEE Trial-Use Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

2. General Interconnection Guidelines

a. Compliance with Laws and Codes: The generating facility, protection, interconnection equipment, design, and design drawings shall meet all applicable national, state, and local laws, including construction and safety codes. The following construction and safety codes shall be followed for the design and construction of all distributed generating facility installations to ensure the safety of the public, customer, and utility personnel. These codes include, but are not limited to, the following:

- National Electric Code (NEC)
- National Electrical Safety Code (NESC)
- National Fire Protection Association (NFPA) Building Code
- City & County of Honolulu Building Code
- Uniform Building Code (UBC)
- American Concrete Institute (ACI)
- American Institute of Steel Construction (AISC)
- American Association of State Highways & Transportation Officials (AASHTO)

b. Notification for Additional Technical Study: With regard to the potential need for additional technical study referenced in various sections of this Appendix III, as described in section 2 of Appendix III (Interconnection Process Overview) to Rule 14H, upon Company's determination that additional technical study will be required based on the results of the initial technical screening, the Company shall notify the customer in writing within fifteen (15) business days, or such other period as is mutually agreed upon in writing between the Company and the customer, following the initial technical screening of any additional technical study required and the reasons for such study.

c. Export of Power: Generating facilities intending to export power to the utility may require additional technical study that will be identified by the Company to evaluate the impacts of the export power on equipment ratings and protective relay settings. Analyses such as a Feeder Load Flow, Dynamic Stability Analysis, Transient Overvoltage, Short Circuit and Relay Coordination may need to be performed in order to evaluate the impacts of the export of power on equipment ratings and protective relay settings. Generating facilities that export power to the utility system will change the direction of power flow on the utility system. The magnitude of the change in power flow will be a function of the aggregate amount of export power on a feeder, the location of the generating facilities exporting power on a feeder, the feeder load, and the location of loads on a feeder. The need for the additional analyses listed above will depend on these factors.

d. Utility Feeder Penetration: As the penetration of generating capacity increases on the utility distribution feeder, there is increased risk of voltage regulation problems, adverse interactions with the utility's protection system, and unintended islanding. Therefore, additional technical study to examine the risk of voltage regulation problems, protection malfunction from reverse power flow, and unintended islanding may be required when the aggregate generating capacity per distribution feeder exceeds 10% of the peak annual KVA load of the feeder. Analyses such as a Feeder Load Flow, Dynamic Stability Analysis, Transient Overvoltage, Short Circuit and Relay Coordination may need to be performed in order to evaluate the risk of voltage regulation problems, protection malfunction from reverse power flow and unintended islanding. The need for such study will be identified by the Company.

   To avoid excessive unbalanced loading on the utility distribution feeder, interconnection of 1-phase generating facilities with a capacity greater than 10kW shall be reviewed by the Company in its initial technical screening of the utility feeder penetration on the Company's system. Based upon the results of the initial technical screening, the Company may determine that additional technical study of the utility feeder penetration is necessary.

e. Short Circuit Contribution Ratio (SCCR): A generating facility's short circuit current contribution to the utility distribution feeder can affect operation of existing utility protective devices. A good indicator of the potential impact of a generating facility's short circuit contribution is the Short Circuit Contribution Ratio, which is the ratio of the aggregate short circuit contribution of the generating facility to the short circuit contribution of the utility system (including all other generating facility sources), for a three-phase fault at the high side of the customer or utility distribution transformer. To ensure the operation of existing utility protective devices are not compromised, additional technical study may be required for generating facilities with an SCCR greater than 5%. Analyses such as Short Circuit and Relay Coordination may need to be performed. The need for such study will be identified by the Company.

f. Network Interconnection: Connection of generating facilities on utility distribution network systems shall be reviewed by the Company in its initial technical screening of the impact of the distributed generating facility on the Company's system. Based upon the results of the initial technical screening, the Company may determine that additional technical study of the network interconnection is necessary.

3. **Design Requirements**

a. Integration with Utility Grounding and Ground System Protection: The grounding scheme and the ground fault protection of the generating facility shall be coordinated with the utility system to ensure a ground fault is properly cleared on the utility system. Any ground faults detected by the utility protection scheme (for faults on the utility feeder between the utility substation and the generating facility) must also be detected by the protection scheme of the generating facility. For a single line to ground fault on the connecting utility feeder, the generating facility's ground fault protection must be sufficient to prevent damage to the utility system and other customer equipment due to overvoltage caused by ferroresonance, displaced neutral, or self-excitation. The generating facility must disconnect before the utility breaker recloses automatically.

b. Transformer Winding Configuration: The transformer winding configuration of the customer or utility distribution transformer serving the generating facility shall be reviewed by the Company in its initial technical screening to determine the potential impact to the utility system and generating facility, and subsequent interconnection requirements. Refer to typical single-line diagrams in Figures 1-3. Based upon the results of the initial technical screening, the Company may determine that additional technical study of the transformer winding configuration is necessary.

c. Isolation Device: The customer shall furnish and install a manual disconnect device that has a visible break to isolate their generating facility from the utility distribution system. The device must be accessible to utility personnel and be capable of being locked by utility personnel in the open position. For generating facilities that do not have a circuit breaker or interrupting device, the disconnect device must be capable of interrupting load. An existing service disconnect device may be used if it meets these requirements. A label provided by the utility (indicating "Customer Generating Facility") shall be attached to the generator disconnect device.

d. Interrupting Device: Applicable circuit breakers or interrupting devices at the generating facility must be capable of interrupting the maximum available fault current at the site, including any contribution from the generating facility. For generating facilities that are greater than 10kW, the interrupting device must be accessible to utility personnel at all times.

e. Dedicated Transformer: The utility may require the generating facility to install a dedicated transformer, where the generating facility is served from the same transformer secondary as another utility customer and if inverter-based technology is used that does not meet IEEE 519-1992 (or latest versions) specifications. A dedicated transformer or other current-limiting device is needed

for any type of generating facility where the increase in available short circuit current could adversely impact other utility customers on the same secondary circuit (i.e., the short circuit contribution of the generating facility must not increase the available short circuit current to the other utility customers on the same secondary circuit such that the ratings of their equipment and protective devices are exceeded). Based upon the results of the initial technical screening or additional technical study, the Company shall determine whether an adverse impact may occur and whether a dedicated transformer is necessary. In accordance with Section 2.c of Appendix III, the Company shall provide the customer with final results of all technical screenings and studies in writing, and shall notify the customer of such determination and the reasons for such determination as part of the written results.

f. Supervisory Control: For generating facilities with an aggregate capacity greater than 1MW, computerized supervisory control may be required to ensure the safety of working personnel and prompt response to system abnormalities in case of islanding of the generating facility. Based upon the results of the initial technical screening or additional technical study, the Company shall determine whether supervisory control is necessary. In accordance with Section 2.c of Appendix III, the Company shall provide the customer with final results of all technical screenings and studies in writing, and shall notify the customer of such determination and the reasons for such determination as part of the written results.

   Supervisory control shall include monitoring of: (a) gross generation by the generating facility; (b) feedback of Watts, Vars, WattHours, current and voltage; (c) Vars furnished by the utility; and (d) status of the interrupting device. In addition, the supervisory control will allow the utility to trip the interrupting device during emergency conditions.[5] Monitoring will be performed by system dispatchers or operators at the Company's control center.

g. Surge Capability: The generating facility interconnection equipment and relays shall have the capability to withstand voltage and current surges in accordance with IEEE/ANSI Standard C62.41 or IEEE Standard C37.90.1 as appropriate.

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[5] Emergency conditions refer to the need for immediate action in response to a situation that has caused injury, loss of life or property damage. Emergency conditions include, but are not limited to:
A system emergency or forced outage;
A potential hazard to Company personnel or the general public;
A hazardous condition relating to the generating facility;
The generating facility is interfering with the Company's equipment or equipment belonging to other customers (including non-utility generating equipment);
The generating facility's protective devices have been tampered with by the customer and/or owner and/or operator of the generating facility; or
A need for immediate action in response to a situation that has caused (or has the potential to cause) injury, loss of life or property damage.

h. Equipment Testing: The generating facility shall provide to the utility the manufacturer's brochures/instruction manuals and technical specifications of their proposed generating facility equipment, and test reports for evaluation by the utility.

In addition, verification tests of customer-owned equipment shall be performed on-site by customer to verify protective settings and functionality to ensure that the equipment will not adversely affect the utility distribution system and that it will cease providing power to the system under abnormal conditions. A verification test shall be performed upon initial parallel operation of the generating facility, or whenever interface hardware or software is changed that can affect the protective functions. These tests shall be done by a qualified individual (hired or employed by the customer) in accordance with the manufacturer's recommended test procedure and in concurrence with the utility. Qualified individual include professional engineers, factory trained and certified technicians, and licensed electricians with experience in testing protective equipment.[6] To ensure that verification tests of customer-owned equipment are performed correctly, the utility may request to witness the tests and receive written certification of the results from the qualified individual. The customer must inform the Company in writing of proposed changes in the customer's interconnection hardware or software that are related to the performance, operation, or timing of the protective functions not later than fifteen (15) business days prior to implementation of such changes. Upon receiving notice of such proposed changes from the customer, the Company must notify the customer in writing of any concerns regarding the proposed changes within fifteen (15) business days, in which case the changes shall not be implemented until the customer and Company resolve the concerns to their mutual satisfaction and document the resolution in writing.

All interconnection-related protective functions and transfer trip schemes, if applicable, shall be periodically tested at intervals specified by the manufacturer, or in accordance with industry practice. (When the interval is not specified by the manufacturer or by the Company, protective functions should be tested every four years.) The customer shall submit or make available for inspection by the utility, test reports of such testing. Periodic testing conforming to the utility test intervals for the particular line section can be specified by the utility under special circumstances (e.g., where the generating facility is connected to a utility feeder that has experienced high frequency of outages due to natural or unnatural causes such as in coastal areas where there are high winds). The Company will determine whether special circumstances exist, and must inform the customer in writing of any such determination and the reasons for that determination. A

[6] Also see the Standard Interconnection Agreement, Exhibit B, paragraph 2.a. (Sheet No. 34C-17).

system that depends upon a battery for trip power shall be checked and logged once per month for proper voltage, or monitored continuously.

4. **Operating Requirements**

a. Disconnection of Generating Facility for Utility Reasons: Upon providing reasonable notice (generally not to be less than ten (10) business days for scheduled work), the utility may require the generating facility to temporarily disconnect from the utility's system when necessary for the utility to construct, install, maintain, repair, replace, remove, investigate, test, or inspect any of its equipment or other utility customer's equipment, or any part of its system. The generating facility shall not energize a de-energized utility line under any circumstances, but may operate isolated from the utility system with an open tie point in accordance with Section 4.i.

If the utility determines that such disconnection is necessary because of unexpected system emergencies, forced outages, operating conditions on the utility's system, or compliance with good engineering practices as determined by the Company's engineers and/or operations personnel, the Company will immediately attempt to notify, in person, by telephone, by electronic mail, or by facsimile, the customer's designated representatives of the need to disconnect the customer's generating facility. Unless the emergency condition requires immediate disconnection as determined by the utility, the Company shall allow sufficient time for the generating facility operator to manually disconnect the generator. (As stated in Section 4.b below, there are circumstances where the utility may disconnect the generating facility without prior notice to the Customer.)

Following the completion of work and/or rectification of the emergency conditions by the utility, the utility shall reset the Customer's service breaker, if open, as soon as practicable and shall provide, within fifteen (15) business days or such other period as is mutually agreed upon in writing by the utility and the customer, written documentation of the occurrence and nature of the utility's work and/or emergency condition, and the disconnection of the customer's generating facility.

The utility shall take reasonable steps to minimize the number and duration of such disconnections. The utility may disconnect the customer from the utility's system for failure by the customer to disconnect their generating facility under this Section 4.a, until such time that the utility work or emergency condition has been corrected and the normal system condition has been restored.

b. Personnel and System Safety: The utility may disconnect the generating facility from the utility's system, without prior notice to the customer: (a) to eliminate conditions that constitute a potential hazard to the utility's personnel or the

general public; (b) if pre-emergency[7] or emergency conditions (see footnote 4) exist on the utility system; (c) if a hazardous condition relating to the generating facility is observed by the utility's inspection; (d) if the generating facility interferes with the utility's equipment or equipment belonging to other utility customers (including non-utility generating equipment); or (e) if the customer or a party with whom the customer has contracted for ownership and/or operation of the generating facility has tampered with any protective device. The generating facility shall remain disconnected until such time as the utility is satisfied that the endangering condition(s) has been corrected, and the utility shall not be obligated to allow parallel operation of the generating facility during such period. If the utility disconnects the generating facility under this Section 4.b, it shall as soon as practicable notify the customer in person, by telephone, by electronic mail, or by facsimile and provide the reason(s) why the generating facility was disconnected from the Company's system. Following the rectification of the endangering conditions, the utility shall provide, within fifteen (15) business days or such other period as is mutually agreed upon in writing by the utility and the customer, written documentation of the occurrence and nature of the endangering conditions, and the disconnection of the customer's generating facility.

c. Synchronization: Upon connection, the generating facility shall synchronize with the utility distribution system. Synchronization means that at the Point of Interconnection, the frequency difference shall be less than 0.2 Hz from rated frequency, the voltage difference shall be less than 5% of nominal voltage, and the phase angle difference shall be less than 10 degrees.

d. Voltage Regulation: Unless specifically requested by the utility, the generating facility shall not attempt to control or regulate the utility system voltage while operating in parallel with the utility distribution system.

   The generating facility shall not degrade the normal voltage provided by the utility outside the limits stated in the utility tariff (± 5% of nominal voltage).

e. Unintended Islanding: For public and utility personnel safety and to prevent possible damage to customer equipment, the generating facility shall be equipped with protective equipment designed to prevent the generating facility from being connected in parallel with a de-energized utility line. The generating facility must automatically disconnect from the utility distribution system upon loss of utility source, and remain disconnected until the voltage and frequency have stabilized (see Section 4.j). Protective device requirements, such as direct transfer trip, grounding bank, or active anti-islanding scheme, shall be

[7] Pre-emergency conditions refer to the need for immediate action in response to a situation that has the potential to cause injury, loss of life, or property damage.

determined by the Company based upon the results of the initial technical screening and/or additional technical study.

f. Disconnect for Faults: The generating facility shall be equipped with protective equipment designed to automatically disconnect the generating facility from the utility distribution system for faults on the utility distribution circuit to which it is connected, and remain disconnected until the voltage and frequency have stabilized (see Section 4.j).

g. Voltage Disturbances: The generating facility shall be equipped with protective equipment designed to automatically disconnect the generating facility from the utility distribution system for voltages outside the normal operating range within the clearing time as indicated in the table below, and remain disconnected until the voltage and frequency have stabilized (see Section 4.j). The protective equipment shall measure the RMS (root-mean-square) voltage at the Point of Interconnection.

Voltage (% of base voltage)	Voltage (120V base)	Clearing Time
V < 50%	V < 60 volts	10 cycles
50% ≤ V < 88%	60 volts ≤ V < 106 volts	120 cycles
88% ≤ V ≤ 110%	106 volts ≤ V ≤ 132 volts	Normal Range
110% < V < 120%	132 volts < V < 144 volts	60 cycles
120% ≤ V	144 volts ≤ V	10 cycles

For generating facilities ≥ 30kW, the voltage setpoints and clearing times shall be adjustable to accommodate utility system requirements.

h. Frequency Disturbances: The generating facility shall be equipped with protective equipment designed to automatically disconnect the generating facility from the utility distribution system when the frequency at the Point of Interconnection deviates outside the normal operating range of 59.3 – 60.5 Hz, and remain disconnected until the voltage and frequency have stabilized (see Section 4.j). The frequency settings and time delay can be selected by the utility to provide system security.

For generating facilities less than 30kW, the protective equipment shall disconnect the generating facility within 10 cycles. For generating facilities ≥ 30kW, the protective equipment shall: (1) disconnect the generating facility within 10 cycles if the frequency exceeds 60.5 Hz, (2) be capable of time delayed disconnection with adjustable under-frequency settings in the range of 57.0 – 59.3 Hz, and (3) disconnect the generating facility within 10 cycles if the frequency is less than 57.0 Hz.

i. Inadvertent Energization, Operation During Utility System Outage: The generating facility shall not energize a de-energized utility circuit for any reason.

The generating facility may be operated isolated from the utility system during a utility outage or system emergency only with an open tie breaker or disconnect device which isolates the generating facility from the utility system. This shall generally be done through manual opening and lockout of the Customer's service breaker or isolation device by utility personnel prior to starting the generating facility.

Where customers desire the ability to manually or automatically isolate their generating facility from the utility system by themselves, the utility will consider alternative designs proposed by the Customer that will prevent inadvertent energization of a de-energized utility circuit. Such alternative design proposals shall be reviewed and approved in writing by the Company prior to implementation. The utility shall not unreasonably withhold such approval. Upon implementation of an alternative design approved by the Company, the Customer may isolate itself from the utility system during a utility outage and operate its generating facility. Customers' alternative designs may, subject to review and approval by the Company, enable customers to manually or automatically reconnect back to the utility system upon restoration of utility system power, provided that the utility has not locked out the customers' service as described below and subject to the delay requirements specified in Section 4.j.

In certain situations, including any time that utility personnel will be performing work on the distribution system serving the point of interconnection between the utility and Customer, the utility may determine the need to actively verify the open tie point, and to install a Company lock to ensure the safety of utility personnel. The Customer shall provide access to the service breaker or isolation device required under Section 3.c for utility personnel to visually confirm the open tie point and install a Company lock if necessary. Following restoration of grid power or rectification of the emergency condition, the utility personnel shall, as soon as practicable, remove the Company lock to allow reconnection of the generating facility with the utility system.

Generators that do not operate in parallel to the utility's distribution system at any time and which are therefore not covered under an interconnection agreement may be operated by Customer at their discretion.

j. Required Delay on Reconnection: The generating facility shall be equipped with automatic means to prevent reconnection of the generating facility with the utility distribution system until the utility service voltage and frequency are within the utility tariff normal operating ranges and stable for at least 5 minutes, unless earlier directed by the utility.

k. Loss of Protection: Failure of the generating facility interconnection protection equipment, including loss of control power, shall result in the automatic

disconnection of the generating facility from the utility distribution system until such time that the interconnection protection equipment has been restored. Such failure shall initiate a signal to trip a generating facility circuit breaker or shutdown an inverter. In the case of failure of Company-owned protection equipment, following the rectification of the loss of protection, the utility shall provide, within fifteen (15) business days or such other period as is mutually agreed upon in writing by the utility and the customer, written documentation of the occurrence, and the disconnection of the customer's generating facility.

l. Reclosing Coordination: The generating facility shall be coordinated with the utility system reclosing devices, by disconnecting from the utility distribution system within the first reclose interval and remaining disconnected until the voltage and frequency have stabilized (see Section 4.j).

m. Power Factor: The generating facility shall not adversely impact the power factor at the Point of Interconnection. Generating facilities shall operate at a power factor ≥ 0.85 (lagging or leading).

Operation outside this range is acceptable provided the reactive power of the generating facility is used to meet the reactive power needs of the customer's internal loads or that reactive power is otherwise provided under utility tariff, and it does not adversely impact the utility system voltage as specified in Section 4.d. above.

n. Voltage Flicker: Any voltage flicker at the Point of Interconnection caused by the generating facility shall not exceed the limits defined by the "Borderline of Visibility Curve" identified in IEEE Standard 519-1992 "Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems" (or latest version). This requirement is necessary to minimize the adverse voltage effects upon other utility customers on the utility distribution system.

o. Harmonics: Harmonic distortion at the Point of Interconnection caused by the generating facility shall not exceed the limits stated in IEEE Standard 519-1992 "Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems" (or latest version). The customer is responsible for the installation of any necessary controls or hardware to limit the voltage and current harmonics generated from their generating facility to levels defined in IEEE Standard 519-1992.

p. Direct Current Injection: The generating facility shall not inject DC current greater than 0.5% of the full rated output current into the utility distribution system

at the Point of Interconnection under either normal or abnormal operating conditions. This applies primarily to generating facilities that use an inverter to interconnect with the utility system.

q. Protection from Electromagnetic Interference (Immunity Protection): The influence of electromagnetic interference (EMI) shall not result in a change in state or misoperation of the generating facility interconnection system.

r. Disconnection of Customer Generating Facilities: Except as otherwise provided herein, the disconnection of a customer's generating facility shall not be subject to standby charges provided that the disconnection was caused by the utility or by the failure of the utility's equipment, or the disconnection was requested or required by the utility due to reasons other than problems caused by the customer's generating facility. The procedure for determining the applicability of standby charges to a disconnection event shall be specified in the Company's Schedule SS Standby Service tariff.

5. Technology Specific Requirements

a. Three-Phase Synchronous Generators: The generating facility circuit breakers shall be 3-phase devices with electronic or electromechanical control. The customer shall be responsible for properly synchronizing its generating facility with the utility distribution system by means of either a manual or automatic synchronizing function. Automatic synchronizing is required for all synchronous generators which have an SCCR greater than 5%. For a generating facility whose SCCR exceeds 5%, the customer shall provide protective equipment suitable for detecting loss of synchronism and automatically disconnecting the generating facility from the utility distribution system. Unless otherwise agreed to in writing between the utility and customer, synchronous generators shall automatically regulate power factor, not voltage, while operating in parallel with the utility system.

b. Induction Generators: Induction generators may be connected and brought up to synchronous speed (as an induction motor) if it can be demonstrated that the initial voltage drop measured at the Point of Interconnection is within the visible flicker limits as defined by IEEE 519-1992 (or latest version). The same requirements also apply to induction generation connected at or near synchronous speed because a similar voltage dip is present due to an inrush magnetizing current. The customer shall submit number of starts per specific time period and maximum starting kVA draw data for the utility to verify that the voltage dip due to starting is within the visible flicker limits and does not degrade the normal voltage provided by the utility.

Induction generators do not require separate synchronizing equipment. Starting or rapid load fluctuations on induction generators can adversely impact the utility's system voltage. Corrective step-switched capacitors or other techniques may be necessary if the voltage fluctuations measured at the Point of Interconnection are not within the visible flicker limits as defined by IEEE 519-1992 (or latest version). These measures can, in turn, cause ferroresonance. If these measures (additional capacitors) are installed on the customer's side of the Point of Interconnection, the utility will review these measures and may require the customer to install additional protective relaying equipment, provided that the utility provides the customer with written notice of the additional equipment required and the reasons for such determination. The Company will determine whether additional equipment is required to protect the Company's system.

c. Inverter Systems: Inverter interfaced distributed generators that are to be installed in parallel with the utility distribution system must employ a non-islanding synchronous inverter. The inverter design shall comply with the requirements of IEEE Std 1547 and UL 1741 standards (or latest versions) and be certified to have anti-islanding protection such that the synchronous inverter will automatically disconnect upon a utility system interruption.

Self-commutated inverters of the utility-interactive type shall synchronize to the utility. Inverters capable of stand-alone operation shall not attempt to control the voltage while operating in parallel with the utility distribution system. Line-commutated, thyristor-based inverters are not recommended and will require additional technical study to determine harmonic and reactive power requirements. All interconnected inverter systems shall comply with the harmonic current limits of IEEE Std 519-1992 (or latest version).

6. Protection, Synchronizing, and Control Requirements

a. Protection Requirements: The generating facility shall, at a minimum, provide adequate protective devices which include over/under voltage trip, over/under frequency trip, reverse power relay (for non-export generating facilities), and a means for automatically disconnecting the generating facility from the utility distribution system whenever a protective device initiates a trip. Based upon the results of the initial technical screening and/or additional technical study by the Company, additional protective devices may be required. Photovoltaic generating systems are to follow the guidelines set by UL 1741 standard (or latest version). Typical equipment and protective device requirements for large synchronous, induction, and inverter generators are illustrated in Figures 1, 2, and 3 respectively in Exhibit A.

b. Suitable Equipment: All protective devices (described in this document) for generating facilities ≥ 30kW shall be utility-grade (see Definition for "Utility-Grade Protective Equipment") except for inverter-based generating facilities which shall comply with UL-1741 standard (or latest version). The generating facility shall be responsible for identifying the specific models of their protective devices. All protective devices shall be used in accordance with their intended application.

c. Review of Design Drawings: The following engineering drawings/documents are required for review and approval by the utility prior to construction of the generating facility interconnection. Prior to being submitted to the utility, all drawings/documents shall be approved by a Professional Electrical Engineer registered in the State of Hawaii for generating facilities ≥ 30kW. That approval shall be indicated by the presence of the Engineer's Professional seal on all drawings and documents.

- A single-line diagram, relay list, trip scheme and settings of the generating facility, which identifies the Point of Interconnection, circuit breakers, relays, switches, synchronizing equipment, monitoring equipment, and control and protective devices and schemes.

- A three-line diagram which shows the Point of Interconnection, potential transformer (PT) and current transformer (CT) ratios, and details of the generating facility configuration, including relays, meters and test switches. (Not required for generating facilities < 30kW).

EXHIBIT A

Typical Equipment and Protective Device Requirements for Large Synchronous, Induction, and Inverter Generators

HAWAIIAN ELECTRIC COMPANY, INC.

Figure 1

Large Synchronous Generator (Non-export)

Typical Equipment and Protective Device Requirements

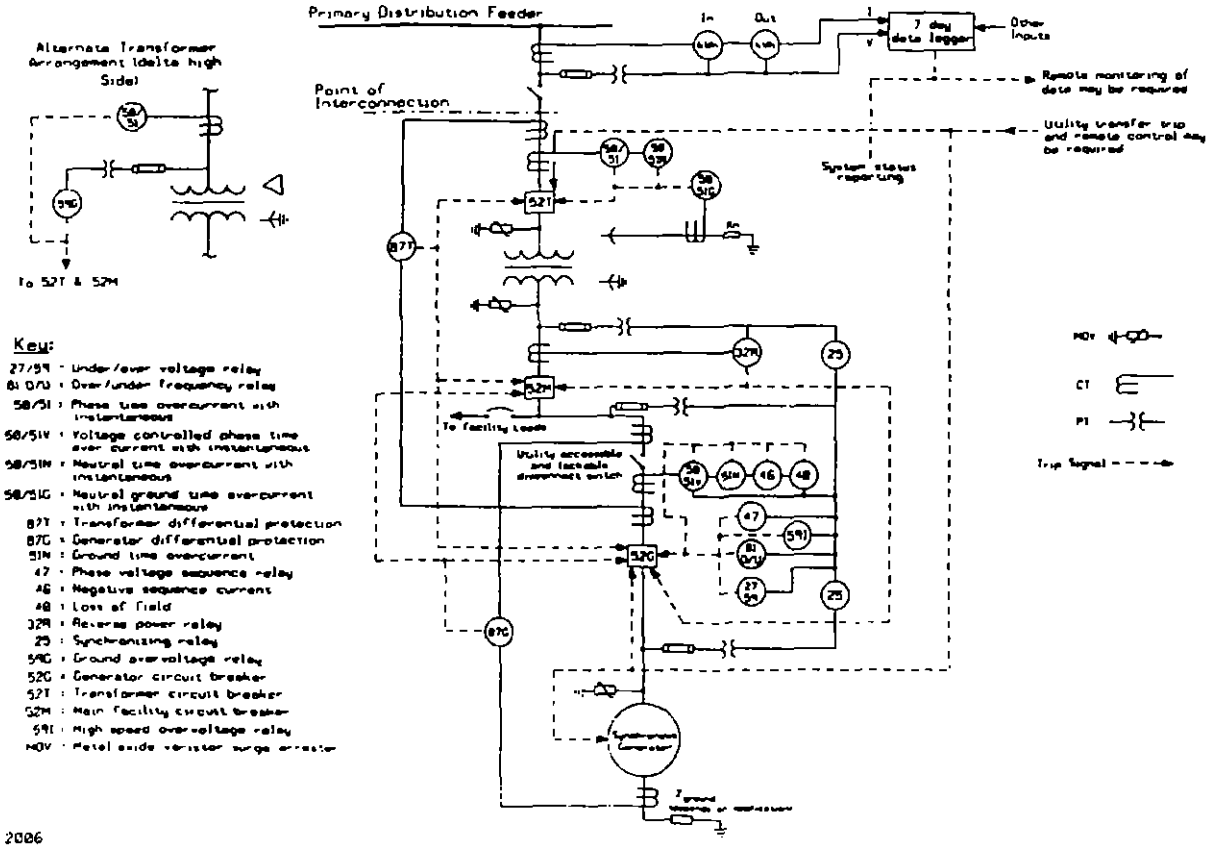
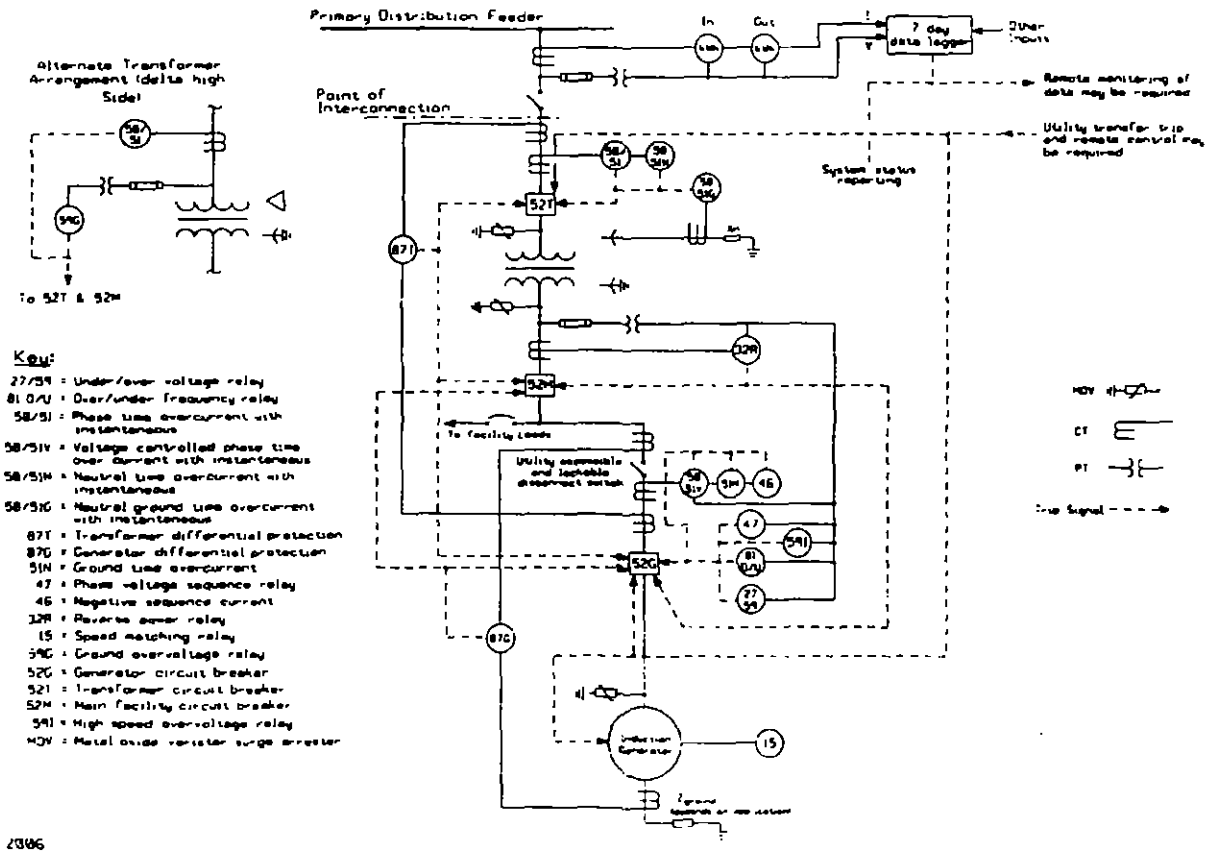


Figure 2

Large Induction Generator (Non-export)

Typical Equipment and Protective Device Requirements

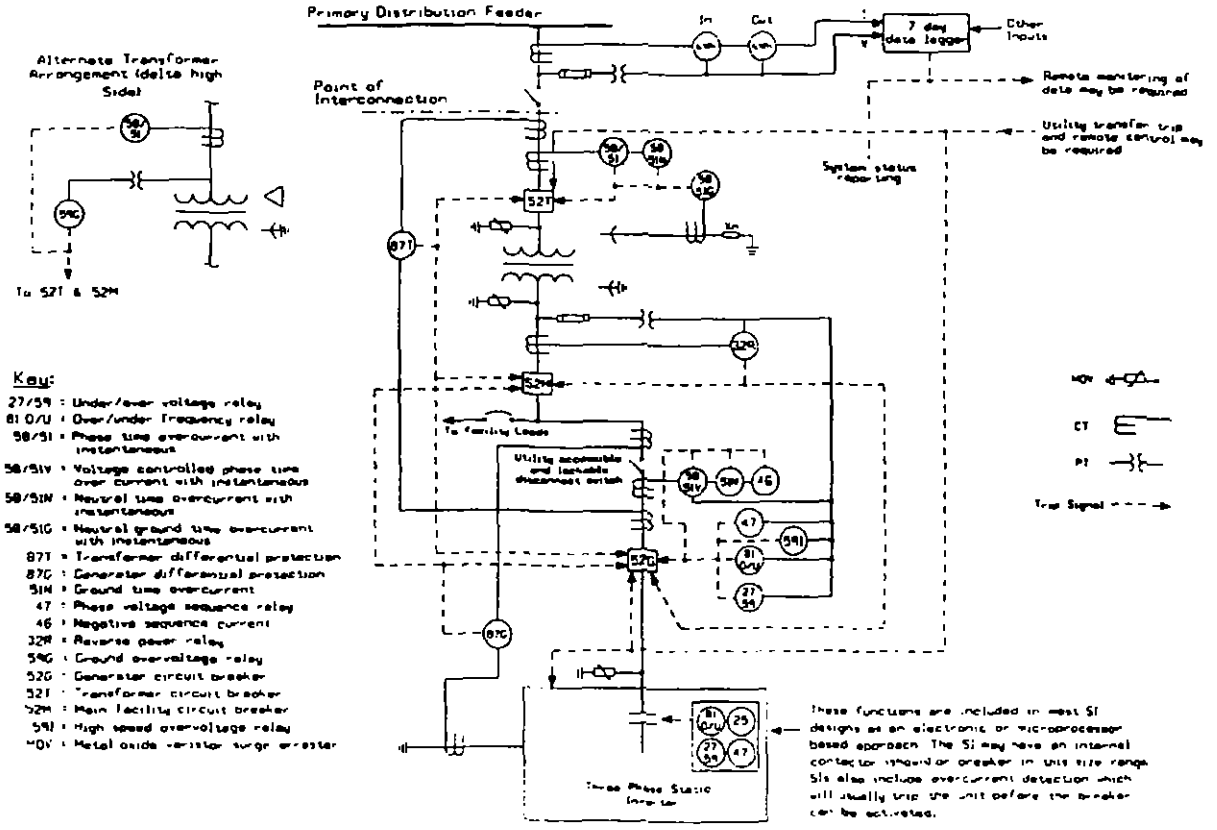


July 24, 2006

Figure 3

Large Static Inverter (Non-export)

Typical Equipment and Protective Device Requirements



Key:

- 27/59 : Under/over voltage relay
- 81 O/U : Over/under frequency relay
- 50/51 : Phase time overcurrent with instantaneous
- 50/51V : Voltage controlled phase time over current with instantaneous
- 50/51N : Neutral time overcurrent with instantaneous
- 50/51G : Neutral ground time overcurrent with instantaneous
- 87T : Transformer differential protection
- 87G : Generator differential protection
- 51N : Ground time overcurrent
- 47 : Phase voltage sequence relay
- 46 : Negative sequence current
- 32R : Reverse power relay
- 59G : Ground overvoltage relay
- 52G : Generator circuit breaker
- 52T : Transformer circuit breaker
- 52M : Main facility circuit breaker
- 59I : High speed overvoltage relay
- MOV : Metal oxide varistor surge arrester

July 24, 2006

APPENDIX III

Renewable Energy Generating Facility Reliability Standards

Reliability Standard for Curtailment

The Company has determined that generation and/or delivery of the following amounts of energy ("Curtailment Amounts") otherwise generated by or deliverable from the following generating facilities that do not generate Renewable Energy from a Renewable Energy Source ("Non-Renewable Energy Generating Facilities") may be curtailed, in the following order, to accommodate the delivery, to the Company's electric system, of the following amounts of Renewable Energy ("Renewable Energy Amounts") generated by Renewable Energy Generating Facilities of the following types, without impairing the reliable operation of the Company's electric system, provided that said Renewable Energy Generating Facilities comply with the Technical Requirements for Interconnection set forth in this Appendix III:

Non-Renewable Energy Generating Facility	Curtailment Amounts (kWh)	Type of Renewable Energy Generating Facility	Renewable Energy Amounts (kWh)
[identify curtailable Non-Renewable Energy Generating Facility no. 1]	[to be determined]	Photovoltaic Concentrating Solar Onshore Wind In-line Hydro	[to be determined] [to be determined] [to be determined] [to be determined]
[identify curtailable Non-Renewable Energy Generating Facility no. 2]	[to be determined]	Photovoltaic Concentrating Solar Onshore Wind In-line Hydro	[to be determined] [to be determined] [to be determined] [to be determined]
[identify curtailable Non-Renewable Energy Generating Facility no. 3]	[to be determined]	Photovoltaic Concentrating Solar Onshore Wind In-line Hydro	[to be determined] [to be determined] [to be determined] [to be determined]
[et cetera]			

SCHEDULE FIT

Feed-in Tariff – Purchases from Renewable Energy Generators

Definitions:

For the purposes of this Schedule:

(1) "Baseline Energy" means energy generated or produced from wind, sun, falling water, biogas (including landfill and sewage-based digester gas), geothermal, ocean water, currents, and waves, including ocean thermal energy conversion, biomass (including biomass crops, agricultural and animal residues and wastes, and municipal solid waste and other solid waste), and hydrogen produced from renewable resources, other than Renewable Energy generated by a Photovoltaic Generating Facility, a Concentrating Solar Power Facility, an Onshore Wind Generating Facility or an In-line Hydropower Generating Facility.

(2) "Baseline Generating Facility" means a Renewable Energy Generating Facility that generates electricity from Baseline Energy.

(3) "Commission" means the State of Hawaii Public Utilities Commission.

(4) "Company" means Hawaii Electric Light Company, Inc.

(5) "Concentrating Solar Power Facility" means a Renewable Energy Generating Facility that generates electricity by concentrating solar radiation to heat a working fluid that drives a generator.

(6) "Electrical Capacity" means the installed maximum nameplate alternating-current electricity generating capacity, in kilowatts, of a Renewable Energy Generating Facility.

(7) "FIT Reliability Standards" means standards developed and adopted by the Company, and approved by the Commission, that establish when an additional Renewable Energy Generating Facility can or cannot be interconnected with the Company's electric system on an island or region therein without markedly increasing curtailment of existing or new Renewable Energy Generating Facilities, including the Company's existing standards contained in the Company's tariff Rule 14H.

(8) "In-Line Hydropower" means hydroelectric generation that utilizes energy from a water pipeline system that is designed primarily to serve another functional purpose where a section of pipeline is replaced with a turbine-generator section.

(9) "In-Line Hydropower Generating Facility" means a Renewable Energy Generating Facility that generates electricity from In-Line Hydropower.

(10) "Onshore Wind Generating Facility" means any Wind Generating Facility that is not located in an ocean water depth of 20 meters or more.

(11) "Photovoltaic Generating Facility" means a Renewable Energy Generating Facility that uses photovoltaic material to generate electricity from solar radiation.

(12) "Renewable Energy Generating Facility" means any identifiable facility, plant, installation, project, equipment, apparatus, or the like, located in the State of Hawaii, placed in service after the effective date of this Schedule, and that generates Renewable Energy from a Renewable Energy Source.

(13) "Renewable Energy Generator" means any person that owns, controls, operates, manages, or uses a Renewable Energy Generating Facility to generate Renewable Energy from a Renewable Energy Source.

(14) "Renewable Energy Source" means the following sources of energy:

(a) In-Line Hydropower;
(b) solar radiation;
(c) wind;
(d) Baseline Energy.

(15) "Renewable Energy" means electricity generated by a Renewable Energy Generating Facility from a Renewable Energy Source.

(16) "Wind Generating Facility" means a Renewable Energy Generating Facility that generates electricity from wind.

Interconnection

Upon the application of a Renewable Energy Generator that places a Renewable Energy Generating Facility in service, the Company shall interconnect such Renewable Energy Generating Facility to the electric system of the Company, provided that technical requirements set forth in the Company's FIT Reliability Standards, as approved by the Commission, are met. If the Company decides, after performing an interconnection requirements study ("IRS"), that such Renewable Energy Generating Facility does not meet such technical requirements, the Company shall file a detailed report with the Commission explaining the reasons why such Renewable Energy Generating Facility does not meet such technical requirements.

Costs incurred to meet technical requirements of interconnection of a Renewable Energy Generating Facility shall be allocated in the manner set forth below under "Interconnection Costs." Each of the Company and the Renewable Energy Generator shall disclose to the other, within 6 weeks of a request by the other, any and all data, relating to the electric system of the

Company or the Renewable Energy Generating Facility of the Renewable Energy Generator, necessary to plan and execute such interconnection in conformity with such technical requirements.

A Renewable Energy Generating Facility shall be designed to operate in parallel with the Company's electric system without adversely affecting the operations of its customers and without presenting safety hazards to personnel of the Company or its customers. The Renewable Energy Generator shall furnish, install, operate and maintain facilities such as relays, switches, synchronizing equipment, monitoring equipment and control and protective devices designated by the Company and specified in the standard Schedule FIT Agreement ("Schedule FIT Agreement") as suitable for parallel operation with the electric system of the Company. The Renewable Energy Generating Facility and systems interconnecting the Renewable Energy Generating Facility with the Company's electric system must be in compliance with all applicable safety and performance standards of the National Electric Code (NEC), the Institute of Electrical and Electronics Engineers (IEEE), and the Company's requirements for distributed generation or storage interconnected with the Company's electric system as provided in the Company's Rules, and subject to any other requirements, including payments, as provided in the Schedule FIT Agreement.

Applications to interconnect a Renewable Energy Generating Facility in parallel with the Company's electric system will be processed in accordance with the queuing procedures in Appendix II.

Interconnection Features, Standards and Allocation of Costs

Features and standards of interconnection and allocation of costs of interconnection shall be as follows for each Renewable Energy Generating Facility that is interconnected to the electric system of the Company under this Schedule:

	Tier 1	**Tier 2**	**Tier 3**
	Electrical Capacity (kW)		
In-Line Hydropower Generating Facility Located on Hawaii	≤ 20 kW	> 20 kW and ≤ 100 kW	> 100 kW and ≤ 2720 kW
Photovoltaic Generating Facility Located on Hawaii	≤ 20 kW	> 20 kW and ≤ 250 kW	> 250 kW and ≤ 2720 kW
Concentrating Solar Power Generating Facility Located on Hawaii	≤ 20 kW	> 20 kW and ≤ 500 kW	> 500 kW and ≤ 2720 kW
Onshore Wind Generating Facility	≤ 20 kW	> 20 kW and ≤ 100 kW	None

Located on Hawaii			
	Interconnection Features and Standards		
Voltage Regulation	None	None	Yes
Frequency Regulation	None	None	Yes
SCADA	None	None	Yes
	Allocation of Interconnection Costs		
Interconnection Requirements Study (IRS) Costs	Company	Company	Renewable Energy Generator
System and feeder studies and technology verification studies performed by the utility	Company	Company	Company
Project risk assessment costs including costs associated with curtailment studies	Company	Company	50% Company; 50% Renewable Energy Generator
Line extension and transformation equipment specific to the facility	Renewable Energy Generator	Renewable Energy Generator	Renewable Energy Generator
Substation specific to the facility	Company	Company	Company
Equipment installed at the customer site specific to the facility	Renewable Energy Generator	Renewable Energy Generator	Renewable Energy Generator
SCADA, control system, and curtailment system specific to the facility	Company	Company	Renewable Energy Generator
Utility system costs and upgrades	Company	Company	Company

Schedule FIT Agreement:

The Company shall offer a Schedule FIT Agreement, in the form provided in Appendix I, to any Renewable Energy Generator that applies for interconnection of a Renewable Energy Generating Facility to the electric system of the Company under this Schedule.

In the case of a Renewable Energy Generating Facility that is not compensated for curtailment, each such Schedule FIT Agreement shall oblige the Company to purchase and pay for all Renewable Energy generated by the Renewable Energy Generating Facility and delivered to the electric system of the Company at the feed-in tariff rate of compensation (in cents per kilowatt-hour) set forth in this Schedule, and shall oblige the Renewable Energy Generator to sell and deliver all Renewable Energy generated by the Renewable Energy Generating Facility, in excess of any electricity consumed by the Renewable Energy Generating Facility, to the Company, for the entire term of the Schedule FIT Agreement.

In the case of a Renewable Energy Generating Facility that is compensated for curtailment, each such Schedule FIT Agreement shall oblige the Company to purchase and pay for all Renewable Energy generated by the Renewable Energy Generating Facility and delivered to the electric system of the Company, and all Renewable Energy that would be generated by a Renewable Energy Generating Facility and delivered to the electric system of the Company but for curtailment by the Company of such generation or delivery, at the feed-in tariff rate of compensation (in cents per kilowatt-hour) set forth in this Schedule, and shall oblige the Renewable Energy Generator to sell and deliver all Renewable Energy generated by the Renewable Energy Generating Facility, in excess of any electricity consumed by the Renewable Energy Generating Facility, to the Company, for the entire term of the Schedule FIT Agreement.

Each such Schedule FIT Agreement shall oblige the Company to purchase and pay for all such Renewable Energy at the feed-in tariff rate of compensation (in cents per kilowatt-hour) set forth in this Schedule. The Company shall compensate the Renewable Energy Generator for such Renewable Energy in an amount no less than the number of kilowatt-hours of such Renewable Energy multiplied by such rate of compensation.

A Renewable Energy Generator that owns a Renewable Energy Generating Facility having an Electrical Capacity greater than 20 kilowatts shall be obliged to provide at least 3 months' advance to the Company and the Commission prior to ceasing operation of the Renewable Energy Generating Facility for reasons other than *force majeure* events. Any such Renewable Energy Generator that fails to provide such notice shall be subject to penalty.

Procedures for applying for and executing a Schedule FIT Agreement are provided in Appendix II to this Schedule.

Rights and Obligations Following Term of Schedule FIT Agreement

During a period commencing 6 months prior to the conclusion of the term of a Schedule FIT Agreement and ending upon the conclusion of such term, the Renewable Energy Generator that is a party to such Schedule FIT Agreement shall be obliged to offer to sell electricity

generated by the Renewable Energy Generating Facility to the Company on an annual basis at the feed-in tariff rate of compensation (in cents per kilowatt-hour) set forth in this Schedule as in effect upon the conclusion of such term for such Renewable Energy Generating Facility. If the Company does not accept such offer during such period, the Renewable Energy Generator shall have the right to sell such electricity at any rate of compensation to any person, or to sell such electricity at the PURPA avoided-cost rate to the Company if the Renewable Energy Generator is eligible to do so.

Metering; Instrumentation:

The Company, at its expense, shall install a meter to record the flow of Renewable Energy delivered to the electric system of the Company. The Renewable Energy Generator shall, at its expense, provide, install and maintain all conductors, service switches, fuses, meter sockets, meter instrument transformer housing and mountings, switchboard meter test buses, meter panels and similar devices required for service connection and meter installations on the premises of the Renewable Energy Generating Facility in accordance with the Company's Rules.

The Renewable Energy Generator, at its expense, shall install instrumentation for measuring the amount of hydrological flow, solar radiation, wind velocity and/or Baseline Energy source, as the case may be, at or immediately near the point of contact with the Renewable Energy Generating Facility.

Any energy delivered to a Renewable Energy Generator by the Company will be metered separately from any Renewable Energy delivered by the Renewable Energy Generator to the Company, either by use of multiple meters or a meter capable of separately recording the net inflow and outflow of electricity.

Purchase of Renewable Energy

The Company shall pay for each kilowatt-hour ("kWh") of Renewable Energy as follows.

Renewable Energy Source: In-line Hydropower			
In-Line Hydropower Generating Facility Located on Hawaii Electrical Capacity (kW)		Feed-in Tariff Rate (¢/kWh)	
		Compensated for Curtailment	Not Compensated for Curtailment
Tier 1	≤ 20 kW	21.3	to be determined
Tier 2	> 20 kW and ≤ 100 kW	18.9	to be determined
Tier 3	> 100 kW and ≤ 2720 kW	12.8	to be determined

Renewable Energy Source: Solar Radiation			
Photovoltaic Generating Facility Located on Hawaii Electrical Capacity (kW)		Feed-in Tariff Rate (¢/kWh)	
		Compensated for Curtailment	Not Compensated for Curtailment
Tier 1	≤ 20 kW	25.4	to be determined
Tier 2	> 20 kW and ≤ 250 kW	22.74	to be determined
Tier 3	> 250 kW and ≤ 2720 kW	19.0	to be determined

Renewable Energy Source: Solar Radiation			
Concentrating Solar Power Facility Located on Hawaii Electrical Capacity (kW)		Feed-in Tariff Rate (¢/kWh)	
		Compensated for Curtailment	Not Compensated for Curtailment
Tier 1	≤ 20 kW	36.243	to be determined
Tier 2	> 20 kW and ≤ 500 kW	44.009	to be determined
Tier 3	> 500 kW and ≤ 2720 kW	23.8	to be determined

Renewable Energy Source: Wind			
Onshore Wind Generating Facility Located on Hawaii Electrical Capacity (kW)		Feed-in Tariff Rate (¢/kWh)	
		Compensated for Curtailment	Not Compensated for Curtailment
Tier 1	≤ 20 kW	35.525	to be determined
Tier 2	> 20 kW and ≤ 100 kW	25.0	to be determined

Renewable Energy Source: Baseline Energy			
Baseline Generating Facility Located on Hawaii Electrical Capacity (kW)		Feed-in Tariff Rate (¢/kWh)	
		Compensated for Curtailment	Not Compensated for Curtailment
Tier 1	≤ 20 kW	21.3	to be determined
Tier 2	> 20 kW and ≤ 100 kW	18.9	to be determined
Tier 3	> 100 kW and ≤ 250 kW	12.8	to be determined
Tier 3	> 250 kW and ≤ 500 kW	12.8	to be determined
Tier 3	> 500 kW and ≤ 2720 kW	12.8	to be determined

The Commission shall periodically adjust the Schedule FIT feed-in tariff rates of compensation in accordance with the procedures provided in Appendix III of this Schedule. The Renewable Energy Generator shall receive the feed-in tariff rate of compensation in effect at the time of execution of the Schedule FIT Agreement for the entire term of the Schedule FIT Agreement.

Term of Schedule FIT Agreement:

The term of the Schedule FIT Agreement shall be as follows, commencing on the initial delivery of Renewable Energy under the Schedule FIT Agreement from the Renewable Energy Generator to the Company:

Renewable Energy Source	Term of Agreement
In-Line Hydropower	20 years
Solar Radiation	20 years
Wind	20 years
Baseline Energy	20 years

Net Energy Metering

A Renewable Energy Generator that currently has a net energy metering agreement with the Company, or that is eligible to enter into a net energy metering agreement with the Company, shall have a one-time choice of either (1) entering into a net energy metering agreement with the Company, or (2) entering into a Schedule FIT Agreement with the Company.

Schedule Q

The Company shall have no obligation to offer a Schedule FIT Agreement to a Renewable Energy Generator that currently has a power purchase agreement with the Company providing for the purchase of energy by the Company at a rate specified under Schedule Q.

Aggregate System Caps

The obligations of the Company to interconnect a Renewable Energy Generating Facility having an Electrical Capacity of less than 20 kilowatts to the Company's electric system, and to offer an Schedule FIT Agreement to a Renewable Energy Generator that applies for interconnection of such Renewable Energy Generating Facility to the electric system of the Company under this Schedule, shall not apply with respect to a Renewable Energy Generator that applies for interconnection of a Renewable Energy Generating Facility to the electric system of the Company under this Schedule after the time at which the Company has received applications for interconnection of Renewable Energy Generating Facilities, each having an Electrical Capacity of less than 20 kilowatts, and having an aggregate Electrical Capacity that equals or exceeds .25 per cent of the 2008 peak demand for such electrical system.

The obligations of the Company to interconnect a Renewable Energy Generating Facility having an Electrical Capacity of 20 kilowatts or more to the Company's electric system, and to offer an Schedule FIT Agreement to a Renewable Energy Generator that applies for interconnection of such Renewable Energy Generating Facility to the electric system of the Company under this Schedule, shall not apply with respect to a Renewable Energy Generator that applies for interconnection of a Renewable Energy Generating Facility to the electric system of the Company under this Schedule after the time at which the Company has received applications for interconnection of Renewable Energy Generating Facilities, each having an

Electrical Capacity of 20 kilowatts or more, and having an aggregate Electrical Capacity that equals or exceeds 4.75 per cent of the 2008 peak demand for such electrical system.

Queuing Procedures:

Applications to interconnect a Renewable Energy Generating Facility in parallel with the Company's electric system will be processed in accordance with the queuing procedures in Appendix II.

An independent third party shall oversee the queuing process for Renewable Energy Generating Facilities eligible for feed-in tariff rates of compensation under this Schedule. The independent third party shall assist in developing the queuing process, and inform parties of the queue length and their status in the queue. The independent third party shall also monitor how the Company administers the queue.

Renewable Energy Certificates:

Any certificate, credit, allowance, green tag, or other transferable indicia or environmental attribute, verifying the generation of a particular quantity of energy from a Renewable Energy Source, indicating the generation of a specific quantity of Renewable Energy by a Renewable Energy Generating Facility, or indicating a Renewable Energy Generator's ownership of any environmental attribute associated with such generation, is the property of, and shall inure to the benefit of, the Company for the benefit of ratepayers.

Reporting Requirements of the Company

The Company shall file, on a calendar year basis, an annual report that contains the following information on the status of its performance of its obligations under this Schedule:

(a) Number of project applications received by island, by resource type, by project size, and interconnection process (Rule 14H or IRS at sub-transmission level).

(b) Number and status of projects currently in the queue by island, by resource type, and by project size.

(c) Number of projects completed, interconnected, and contract signed by island, by resource type, and by project size.

(d) Total kilowatt-hours purchased through FITs during the calendar year by island, by project, and by project size.

(e) Total amount in dollars of the power purchased through FITs during the calendar year by island, by project, and by project size.

(f) Number and duration of curtailments and the reason for each curtailment during the year by island and by project.

(g) Program administration information such as the time spent to complete processing a project application from date of receipt of contract application to interconnecting the project in the system – by island, by resource type, and by project size.

Reporting Requirements of the Renewable Energy Generator

Each Renewable Energy Generator that owns a Renewable Energy Generating Facility having an Electrical Capacity greater than 20 kilowatts shall file, within 30 days of the placement in service of such Renewable Energy Generating Facility, in the Commission's FIT docket, subject to protective order, a report that contains the following information on such Renewable Energy Generating Facility:

(a) The cost of project design, permitting, and construction costs, including labor and materials costs;

(b) Financing or capital cost;

(c) Land cost or actual cost of site acquisition;

(d) Interconnection and metering costs incurred by the Renewable Energy Generator;

(e) Other project costs incurred in developing and constructing the project;

(f) Tax credits, rebates, incentives received and applied to the development cost of the project;

(g) Maintenance and operation labor and non-labor costs;

(h) Fuel supply costs (for biomass and biogas projects);

(i) Monthly land or site leases; and

(j) Other operations and maintenance costs.

Each such Renewable Energy Generator also shall file, no later than January 31 of each year, an annual report with the Commission in the FIT docket, that contains the following information with respect to such Renewable Energy Generating Facility:

(a) annual electricity production in kWh; and

(b) annual operating costs, including operations and maintenance costs, lease expenses, insurance, and property taxes.

APPENDIX I

STANDARD SCHEDULE FIT TIER 1 AND TIER 2 AGREEMENT

[same as Standard Schedule FIT Tier 1 and Tier 2 Agreement contained at Appendix I to Schedule FIT of Hawaiian Electric Company, Inc.]

APPENDIX II

QUEUING AND INTERCONNECTION PROCEDURES

[same as Queuing and Interconnection Procedures contained at Appendix II to Schedule FIT of Hawaiian Electric Company, Inc.]

APPENDIX III

RENEWABLE ENERGY GENERATING FACILITY RELIABILITY STANDARDS

[same as Renewable Energy Generating Facility Reliability Standards contained at Appendix III to Schedule FIT of Hawaiian Electric Company, Inc.]

SCHEDULE FIT

Feed-in Tariff – Purchases from Renewable Energy Generators

Definitions:

For the purposes of this Schedule:

(1) "Baseline Energy" means energy generated or produced from wind, sun, falling water, biogas (including landfill and sewage-based digester gas), geothermal, ocean water, currents, and waves, including ocean thermal energy conversion, biomass (including biomass crops, agricultural and animal residues and wastes, and municipal solid waste and other solid waste), and hydrogen produced from renewable resources, other than Renewable Energy generated by a Photovoltaic Generating Facility, a Concentrating Solar Power Facility, an Onshore Wind Generating Facility or an In-line Hydropower Generating Facility.

(2) "Baseline Generating Facility" means a Renewable Energy Generating Facility that generates electricity from Baseline Energy.

(3) "Commission" means the State of Hawaii Public Utilities Commission.

(4) "Company" means Maui Electric Company, Limited.

(5) "Concentrating Solar Power Facility" means a Renewable Energy Generating Facility that generates electricity by concentrating solar radiation to heat a working fluid that drives a generator.

(6) "Electrical Capacity" means the installed maximum nameplate alternating-current electricity generating capacity, in kilowatts, of a Renewable Energy Generating Facility.

(7) "FIT Reliability Standards" means standards developed and adopted by the Company, and approved by the Commission, that establish when an additional Renewable Energy Generating Facility can or cannot be interconnected with the Company's electric system on an island or region therein without markedly increasing curtailment of existing or new Renewable Energy Generating Facilities, including the Company's existing standards contained in the Company's tariff Rule 14H.

(8) "In-Line Hydropower" means hydroelectric generation that utilizes energy from a water pipeline system that is designed primarily to serve another functional purpose where a section of pipeline is replaced with a turbine-generator section.

(9) "In-Line Hydropower Generating Facility" means a Renewable Energy Generating Facility that generates electricity from In-Line Hydropower.

(10) "Onshore Wind Generating Facility" means any Wind Generating Facility that is not located in an ocean water depth of 20 meters or more.

(11) "Photovoltaic Generating Facility" means a Renewable Energy Generating Facility that uses photovoltaic material to generate electricity from solar radiation.

(12) "Renewable Energy Generating Facility" means any identifiable facility, plant, installation, project, equipment, apparatus, or the like, located in the State of Hawaii, placed in service after the effective date of this Schedule, and that generates Renewable Energy from a Renewable Energy Source.

(13) "Renewable Energy Generator" means any person that owns, controls, operates, manages, or uses a Renewable Energy Generating Facility to generate Renewable Energy from a Renewable Energy Source.

(14) "Renewable Energy Source" means the following sources of energy:

(a) In-Line Hydropower;
(b) solar radiation;
(c) wind;
(d) Baseline Energy.

(15) "Renewable Energy" means electricity generated by a Renewable Energy Generating Facility from a Renewable Energy Source.

(16) "Wind Generating Facility" means a Renewable Energy Generating Facility that generates electricity from wind.

Interconnection

Upon the application of a Renewable Energy Generator that places a Renewable Energy Generating Facility in service, the Company shall interconnect such Renewable Energy Generating Facility to the electric system of the Company, provided that technical requirements set forth in the Company's FIT Reliability Standards, as approved by the Commission, are met. If the Company decides, after performing an interconnection requirements study ("IRS"), that such Renewable Energy Generating Facility does not meet such technical requirements, the Company shall file a detailed report with the Commission explaining the reasons why such Renewable Energy Generating Facility does not meet such technical requirements.

Costs incurred to meet technical requirements of interconnection of a Renewable Energy Generating Facility shall be allocated in the manner set forth below under "Interconnection Costs." Each of the Company and the Renewable Energy Generator shall disclose to the other, within 6 weeks of a request by the other, any and all data, relating to the electric system of the

Company or the Renewable Energy Generating Facility of the Renewable Energy Generator, necessary to plan and execute such interconnection in conformity with such technical requirements.

A Renewable Energy Generating Facility shall be designed to operate in parallel with the Company's electric system without adversely affecting the operations of its customers and without presenting safety hazards to personnel of the Company or its customers. The Renewable Energy Generator shall furnish, install, operate and maintain facilities such as relays, switches, synchronizing equipment, monitoring equipment and control and protective devices designated by the Company and specified in the standard Schedule FIT Agreement ("Schedule FIT Agreement") as suitable for parallel operation with the electric system of the Company. The Renewable Energy Generating Facility and systems interconnecting the Renewable Energy Generating Facility with the Company's electric system must be in compliance with all applicable safety and performance standards of the National Electric Code (NEC), the Institute of Electrical and Electronics Engineers (IEEE), and the Company's requirements for distributed generation or storage interconnected with the Company's electric system as provided in the Company's Rules, and subject to any other requirements, including payments, as provided in the Schedule FIT Agreement.

Applications to interconnect a Renewable Energy Generating Facility in parallel with the Company's electric system will be processed in accordance with the queuing procedures in Appendix II.

Interconnection Features, Standards and Allocation of Costs

Features and standards of interconnection and allocation of costs of interconnection shall be as follows for each Renewable Energy Generating Facility that is interconnected to the electric system of the Company under this Schedule:

	Tier 1	**Tier 2**	**Tier 3**
	Electrical Capacity (kW)		
In-Line Hydropower Generating Facility Located on Maui	≤ 20 kW	> 20 kW and ≤ 100 kW	> 100 kW and ≤ 2720 kW
Photovoltaic Generating Facility Located on Maui	≤ 20 kW	> 20 kW and ≤ 250 kW	> 250 kW and ≤ 2720 kW
Concentrating Solar Power Generating Facility Located on Maui	≤ 20 kW	> 20 kW and ≤ 500 kW	> 500 kW and ≤ 2720 kW
Onshore Wind	≤ 20 kW	> 20 kW and	None

Generating Facility Located on Maui		≤ 100 kW	
In-Line Hydropower Generating Facility Located on Lanai or Molokai	≤ 20 kW	> 20 kW and ≤ 100 kW	None
Photovoltaic Generating Facility Located on Lanai or Molokai	≤ 20 kW	> 20 kW and ≤ 100 kW	None
Concentrating Solar Power Generating Facility Located on Lanai or Molokai	≤ 20 kW	> 20 kW and ≤ 100 kW	None
Onshore Wind Generating Facility Located on Lanai or Molokai	≤ 20 kW	> 20 kW and ≤ 100 kW	None
	Interconnection Features and Standards		
Voltage Regulation	None	None	Yes
Frequency Regulation	None	None	Yes
SCADA	None	None	Yes
	Allocation of Interconnection Costs		
Interconnection Requirements Study (IRS) Costs	Company	Company	Renewable Energy Generator
System and feeder studies and technology verification studies performed by the utility	Company	Company	Company
Project risk assessment costs including costs associated with curtailment studies	Company	Company	50% Company; 50% Renewable Energy Generator
Line extension and transformation equipment specific to the facility	Renewable Energy Generator	Renewable Energy Generator	Renewable Energy Generator

Substation specific to the facility	Company	Company	Company
Equipment installed at the customer site specific to the facility	Renewable Energy Generator	Renewable Energy Generator	Renewable Energy Generator
SCADA, control system, and curtailment system specific to the facility	Company	Company	Renewable Energy Generator
Utility system costs and upgrades	Company	Company	Company

Schedule FIT Agreement:

The Company shall offer a Schedule FIT Agreement, in the form provided in Appendix I, to any Renewable Energy Generator that applies for interconnection of a Renewable Energy Generating Facility to the electric system of the Company under this Schedule.

In the case of a Renewable Energy Generating Facility that is not compensated for curtailment, each such Schedule FIT Agreement shall oblige the Company to purchase and pay for all Renewable Energy generated by the Renewable Energy Generating Facility and delivered to the electric system of the Company at the feed-in tariff rate of compensation (in cents per kilowatt-hour) set forth in this Schedule, and shall oblige the Renewable Energy Generator to sell and deliver all Renewable Energy generated by the Renewable Energy Generating Facility, in excess of any electricity consumed by the Renewable Energy Generating Facility, to the Company, for the entire term of the Schedule FIT Agreement.

In the case of a Renewable Energy Generating Facility that is compensated for curtailment, each such Schedule FIT Agreement shall oblige the Company to purchase and pay for all Renewable Energy generated by the Renewable Energy Generating Facility and delivered to the electric system of the Company, and all Renewable Energy that would be generated by a Renewable Energy Generating Facility and delivered to the electric system of the Company but for curtailment by the Company of such generation or delivery, at the feed-in tariff rate of compensation (in cents per kilowatt-hour) set forth in this Schedule, and shall oblige the Renewable Energy Generator to sell and deliver all Renewable Energy generated by the Renewable Energy Generating Facility, in excess of any electricity consumed by the Renewable Energy Generating Facility, to the Company, for the entire term of the Schedule FIT Agreement.

Each such Schedule FIT Agreement shall oblige the Company to purchase and pay for all such Renewable Energy at the feed-in tariff rate of compensation (in cents per kilowatt-hour) set forth in this Schedule. The Company shall compensate the Renewable Energy Generator for such Renewable Energy in an amount no less than the number of kilowatt-hours of such Renewable Energy multiplied by such rate of compensation.

A Renewable Energy Generator that owns a Renewable Energy Generating Facility having an Electrical Capacity greater than 20 kilowatts shall be obliged to provide at least 3 months' advance to the Company and the Commission prior to ceasing operation of the Renewable Energy Generating Facility for reasons other than *force majeure* events. Any such Renewable Energy Generator that fails to provide such notice shall be subject to penalty.

Procedures for applying for and executing a Schedule FIT Agreement are provided in Appendix II to this Schedule.

Rights and Obligations Following Term of Schedule FIT Agreement

During a period commencing 6 months prior to the conclusion of the term of a Schedule FIT Agreement and ending upon the conclusion of such term, the Renewable Energy Generator that is a party to such Schedule FIT Agreement shall be obliged to offer to sell electricity generated by the Renewable Energy Generating Facility to the Company on an annual basis at the feed-in tariff rate of compensation (in cents per kilowatt-hour) set forth in this Schedule as in effect upon the conclusion of such term for such Renewable Energy Generating Facility. If the Company does not accept such offer during such period, the Renewable Energy Generator shall have the right to sell such electricity at any rate of compensation to any person, or to sell such electricity at the PURPA avoided-cost rate to the Company if the Renewable Energy Generator is eligible to do so.

Metering; Instrumentation:

The Company, at its expense, shall install a meter to record the flow of Renewable Energy delivered to the electric system of the Company. The Renewable Energy Generator shall, at its expense, provide, install and maintain all conductors, service switches, fuses, meter sockets, meter instrument transformer housing and mountings, switchboard meter test buses, meter panels and similar devices required for service connection and meter installations on the premises of the Renewable Energy Generating Facility in accordance with the Company's Rules.

The Renewable Energy Generator, at its expense, shall install instrumentation for measuring the amount of hydrological flow, solar radiation, wind velocity and/or Baseline Energy source, as the case may be, at or immediately near the point of contact with the Renewable Energy Generating Facility.

Any energy delivered to a Renewable Energy Generator by the Company will be metered separately from any Renewable Energy delivered by the Renewable Energy Generator to the Company, either by use of multiple meters or a meter capable of separately recording the net inflow and outflow of electricity.

Purchase of Renewable Energy

The Company shall pay for each kilowatt-hour ("kWh") of Renewable Energy as follows.

Renewable Energy Source: In-line Hydropower			
In-Line Hydropower Generating Facility Located on Maui Electrical Capacity (kW)		Feed-in Tariff Rate (¢/kWh)	
		Compensated for Curtailment	Not Compensated for Curtailment
Tier 1	≤ 20 kW	21.3	to be determined
Tier 2	> 20 kW and ≤ 100 kW	18.9	to be determined
Tier 3	> 100 kW and ≤ 2720 kW	12.8	to be determined

Renewable Energy Source: In-line Hydropower			
In-Line Hydropower Generating Facility Located on Lanai or Molokai Electrical Capacity (kW)		Feed-in Tariff Rate (¢/kWh)	
		Compensated for Curtailment	Not Compensated for Curtailment
Tier 1	≤ 20 kW	21.3	to be determined
Tier 2	> 20 kW and ≤ 100 kW	18.9	to be determined

Renewable Energy Source: Solar Radiation			
Photovoltaic Generating Facility Located on Maui Electrical Capacity (kW)		Feed-in Tariff Rate (¢/kWh)	
		Compensated for Curtailment	Not Compensated for Curtailment
Tier 1	≤ 20 kW	25.40	to be determined
Tier 2	> 20 kW and ≤ 250 kW	22.74	to be determined
Tier 3	> 250 kW and ≤ 2720 kW	19.0	to be determined

Renewable Energy Source: Solar Radiation			
Photovoltaic Generating Facility Located on Lanai or Molokai Electrical Capacity (kW)		Feed-in Tariff Rate (¢/kWh)	
		Compensated for Curtailment	Not Compensated for Curtailment
Tier 1	≤ 20 kW	25.40	to be determined
Tier 2	> 20 kW and ≤ 100 kW	22.74	to be determined

Renewable Energy Source: Solar Radiation			
Concentrating Solar Power Facility Located on Maui Electrical Capacity (kW)		Feed-in Tariff Rate (¢/kWh)	
		Compensated for Curtailment	Not Compensated for Curtailment
Tier 1	≤ 20 kW	36.243	to be determined
Tier 2	> 20 kW and ≤ 500 kW	44.009	to be determined
Tier 3	> 500 kW and ≤ 2720 kW	23.8	to be determined

Renewable Energy Source: Solar Radiation			
Concentrating Solar Power Facility Located on Lanai or Molokai Electrical Capacity (kW)		Feed-in Tariff Rate (¢/kWh)	
		Compensated for Curtailment	Not Compensated for Curtailment
Tier 1	≤ 20 kW	36.243	to be determined
Tier 2	> 20 kW and ≤ 100 kW	44.009	to be determined

Renewable Energy Source: Wind			
Onshore Wind Generating Facility Located on Maui, Lanai or Molokai Electrical Capacity (kW)		Feed-in Tariff Rate (¢/kWh)	
		Compensated for Curtailment	Not Compensated for Curtailment
Tier 1	≤ 20 kW	35.525	to be determined
Tier 2	> 20 kW and ≤ 100 kW	25.0	to be determined

Renewable Energy Source: Baseline Energy			
Baseline Generating Facility Located on Maui Electrical Capacity (kW)		Feed-in Tariff Rate (¢/kWh)	
		Compensated for Curtailment	Not Compensated for Curtailment
Tier 1	≤ 20 kW	21.3	to be determined
Tier 2	> 20 kW and ≤ 100 kW	18.9	to be determined
Tier 3	> 100 kW and ≤ 250 kW	12.8	to be determined
Tier 3	> 250 kW and ≤ 500 kW	12.8	to be determined
Tier 3	> 500 kW and ≤ 2720 kW	12.8	to be determined

Renewable Energy Source: Baseline Energy			
Baseline Generating Facility Located on Lanai or Molokai Electrical Capacity (kW)		Feed-in Tariff Rate (¢/kWh)	
		Compensated for Curtailment	Not Compensated for Curtailment
Tier 1	≤ 20 kW	21.3	to be determined
Tier 2	> 20 kW and ≤ 100 kW	18.9	to be determined

The Commission shall periodically adjust the Schedule FIT feed-in tariff rates of compensation in accordance with the procedures provided in Appendix III of this Schedule. The Renewable Energy Generator shall receive the feed-in tariff rate of compensation in effect at the time of execution of the Schedule FIT Agreement for the entire term of the Schedule FIT Agreement.

Term of Schedule FIT Agreement:

The term of the Schedule FIT Agreement shall be as follows, commencing on the initial delivery of Renewable Energy under the Schedule FIT Agreement from the Renewable Energy Generator to the Company:

Renewable Energy Source	Term of Agreement
In-Line Hydropower	20 years
Solar Radiation	20 years
Wind	20 years
Baseline Energy	20 years

Net Energy Metering

A Renewable Energy Generator that currently has a net energy metering agreement with the Company, or that is eligible to enter into a net energy metering agreement with the Company, shall have a one-time choice of either (1) entering into a net energy metering agreement with the Company, or (2) entering into a Schedule FIT Agreement with the Company.

Schedule Q

The Company shall have no obligation to offer a Schedule FIT Agreement to a Renewable Energy Generator that currently has a power purchase agreement with the Company providing for the purchase of energy by the Company at a rate specified under Schedule Q.

Aggregate System Caps

The obligations of the Company to interconnect a Renewable Energy Generating Facility having an Electrical Capacity of less than 20 kilowatts to the Company's electric system, and to offer an Schedule FIT Agreement to a Renewable Energy Generator that applies for interconnection of such Renewable Energy Generating Facility to the electric system of the Company under this Schedule, shall not apply with respect to a Renewable Energy Generator that applies for interconnection of a Renewable Energy Generating Facility to the electric system of the Company under this Schedule after the time at which the Company has received applications for interconnection of Renewable Energy Generating Facilities, each having an Electrical Capacity of less than 20 kilowatts, and having an aggregate Electrical Capacity that equals or exceeds .25 per cent of the 2008 peak demand for such electrical system.

The obligations of the Company to interconnect a Renewable Energy Generating Facility having an Electrical Capacity of 20 kilowatts or more to the Company's electric system, and to offer an Schedule FIT Agreement to a Renewable Energy Generator that applies for interconnection of such Renewable Energy Generating Facility to the electric system of the Company under this Schedule, shall not apply with respect to a Renewable Energy Generator that applies for interconnection of a Renewable Energy Generating Facility to the electric system of the Company under this Schedule after the time at which the Company has received applications for interconnection of Renewable Energy Generating Facilities, each having an Electrical Capacity of 20 kilowatts or more, and having an aggregate Electrical Capacity that equals or exceeds 4.75 per cent of the 2008 peak demand for such electrical system.

Queuing Procedures:

Applications to interconnect a Renewable Energy Generating Facility in parallel with the Company's electric system will be processed in accordance with the queuing procedures in Appendix II.

An independent third party shall oversee the queuing process for Renewable Energy Generating Facilities eligible for feed-in tariff rates of compensation under this Schedule. The independent third party shall assist in developing the queuing process, and inform parties of the queue length and their status in the queue. The independent third party shall also monitor how the Company administers the queue.

Renewable Energy Certificates:

Any certificate, credit, allowance, green tag, or other transferable indicia or environmental attribute, verifying the generation of a particular quantity of energy from a Renewable Energy Source, indicating the generation of a specific quantity of Renewable Energy by a Renewable Energy Generating Facility, or indicating a Renewable Energy Generator's ownership of any environmental attribute associated with such generation, is the property of, and shall inure to the benefit of, the Company for the benefit of ratepayers.

Reporting Requirements of the Company

The Company shall file, on a calendar year basis, an annual report that contains the following information on the status of its performance of its obligations under this Schedule:

(a) Number of project applications received by island, by resource type, by project size, and interconnection process (Rule 14H or IRS at sub-transmission level).

(b) Number and status of projects currently in the queue by island, by resource type, and by project size.

(c) Number of projects completed, interconnected, and contract signed by island, by resource type, and by project size.

(d) Total kilowatt-hours purchased through FITs during the calendar year by island, by project, and by project size.

(e) Total amount in dollars of the power purchased through FITs during the calendar year by island, by project, and by project size.

(f) Number and duration of curtailments and the reason for each curtailment during the year by island and by project.

(g) Program administration information such as the time spent to complete processing a project application from date of receipt of contract application to

interconnecting the project in the system – by island, by resource type, and by project size.

Reporting Requirements of the Renewable Energy Generator

Each Renewable Energy Generator that owns a Renewable Energy Generating Facility having an Electrical Capacity greater than 20 kilowatts shall file, within 30 days of the placement in service of such Renewable Energy Generating Facility, in the Commission's FIT docket, subject to protective order, a report that contains the following information on such Renewable Energy Generating Facility:

(a) The cost of project design, permitting, and construction costs, including labor and materials costs;

(b) Financing or capital cost;

(c) Land cost or actual cost of site acquisition;

(d) Interconnection and metering costs incurred by the Renewable Energy Generator;

(e) Other project costs incurred in developing and constructing the project;

(f) Tax credits, rebates, incentives received and applied to the development cost of the project;

(g) Maintenance and operation labor and non-labor costs;

(h) Fuel supply costs (for biomass and biogas projects);

(i) Monthly land or site leases; and

(j) Other operations and maintenance costs.

Each such Renewable Energy Generator also shall file, no later than January 31 of each year, an annual report with the Commission in the FIT docket, that contains the following information with respect to such Renewable Energy Generating Facility:

(a) annual electricity production in kWh; and

(b) annual operating costs, including operations and maintenance costs, lease expenses, insurance, and property taxes.

APPENDIX I

STANDARD SCHEDULE FIT TIER 1 AND TIER 2 AGREEMENT

[same as Standard Schedule FIT Tier 1 and Tier 2 Agreement contained at Appendix I to Schedule FIT of Hawaiian Electric Company, Inc.]

APPENDIX II

QUEUING AND INTERCONNECTION PROCEDURES

[same as Queuing and Interconnection Procedures contained at Appendix II to Schedule FIT of Hawaiian Electric Company, Inc.]

APPENDIX III

RENEWABLE ENERGY GENERATING FACILITY RELIABILITY STANDARDS

[same as Renewable Energy Generating Facility Reliability Standards contained at Appendix III to Schedule FIT of Hawaiian Electric Company, Inc.]

CERTIFICATE OF SERVICE

I hereby certify that I have this date filed and served the original and eight copies of the foregoing **PROPOSED TIER 3 TARIFF OF CLEAN ENERGY MAUI LLC AND ZERO EMISSIONS LEASING LLC** in Docket No. 2008-0273, by hand delivery to the Commission at the following address:

CARLITO CALIBOSO
PUBLIC UTILITIES COMMISSION
465 S. King Street, Suite 103
Honolulu, HI 96813

I hereby further certify that I have this date served copies of the foregoing **PROPOSED TIER 3 TARIFF OF CLEAN ENERGY MAUI LLC AND ZERO EMISSIONS LEASING LLC** in Docket No. 2008-0273, upon the following parties and participants by causing such copies thereof to be hand delivered, mailed by first class mail, or electronically transmitted to each such party or participant as follows:

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DATED: Honolulu, Hawaii, April 29, 2010

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